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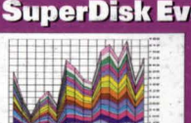
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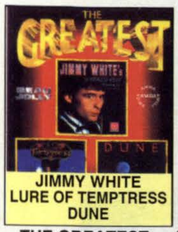
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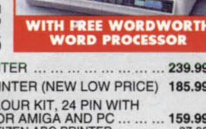
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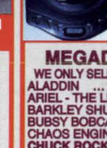
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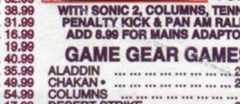


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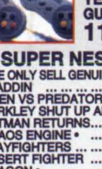


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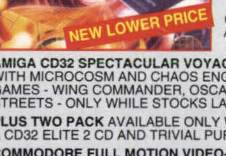
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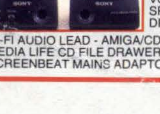




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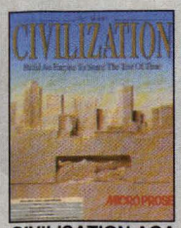


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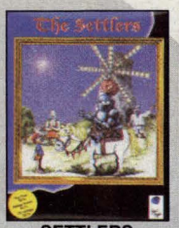
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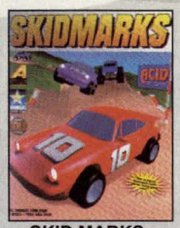
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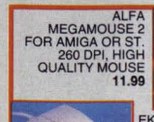
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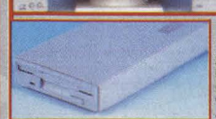
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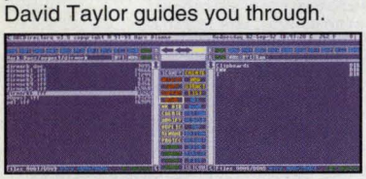
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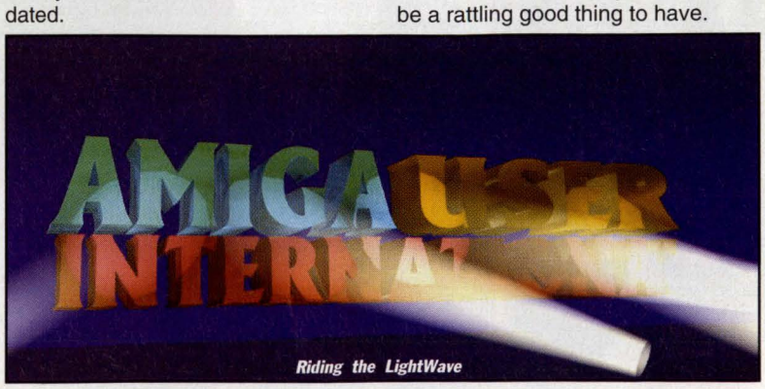
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The Amiga Dimension

"Well," said my caller, "What's happening with Commodore?"

Silence from me. In fact, silence from them too. Since the brief announcement that came from CBM on their seeking the protection of the Bahamian Court on April 30th, no official Commodore statement has reached us. "Come on, not a word? " protested my caller.

No news might be good news... I offered somewhat hesitantly.

"No news means that they haven't done a deal and that's not good news at all!" he said. And he was right. Time is moving on and so is the computer world. If Commodore can't get a deal soon, it could be too late. It needs to do all the things that any technological company has to go on doing all the time. It needs first to make machines and it seems that not one is being produced.

It needs to sell machines. It's still doing that. In the UK the average shopper isn't really conscious of any problems, for the 1200s and the Amiga CD 32s can be seen in the stores and are still selling.

A computer company needs though to keep on developing. At the Multimedia Show in London, the Amiga was represented only by a very small presence of Scala and one other Amiga developer, Syntronics. Multimedia... where the Amiga could reign supreme...

In spite of my obvious preference, I could not help but register the improvements that are being made for the PC. Video is arriving in force. It's still costing lumps more than multimedia would on the Amiga, but when long-established Amiga developers like Gold Disk depart completely to the PC scene, the signs cannot be good. The developers perhaps more than anybody need some reassurance that the Amiga has a future.

I spoke to a senior Commodore UK source who agreed that Commodore was multiplying its problems by not saying anything on what was going on, but Commodore UK unfortunately is not in control of the situation.

What is holding up a deal to enable the Amiga to survive? The stories are that the major international company(ies) interested are finding Commodore's big bosses demanding too high a price for their own involvement – or departure. Those multinational groups are unwilling to pay too much for a company or a technology that is not seen in the USA or the Pacific Rim as a leading player on the international computer scene.

There is also, it is thought, a fundamental doubt in their minds. The Amiga's operating system is not MSDOS or Windows. It's not Nintendo or Sega. It's not MAC or Unix or even IBM's OS/2, on which incidentally IBM are spending millions making the general public familiar with it through interesting, but somewhat obscure advertisements with slogans like "No-one ever got famous by saying it can't be done." And perhaps more relevantly for the Amiga, "Nobody ever got rich on potential".

These big systems are the standards for millions of computers. Can a "small", low price system like the Amiga's survive when most people want the comfort of using just one universally accepted system? The very fact that there are quite a few systems existing together probably helps. Because, with a multiplicity likely to stay around, one more doesn't make that much difference especially with the growing sophistication of emulators.

What has to be done by the company that buys the Amiga is to promote it as a very special, but very superior system. Develop it quickly with AAA or AAAA or PowerAmiga, some really advanced features and bang the drum about its advantages and low price. The Amiga's talents need shouting about. A new company should have and use the means to make the world listen. But time is passing and at present what's making everybody nervous is not hearing a whisper from Commodore.

"They must be able to say something," said my caller, "even if it's only 'Goodbye'."

Antony Jacobson
Managing Editor

AUI SuperDisk

Welcome to the August 1994 SuperDisk! This month's SuperDisk has an amazing 24 programs crammed on it! David Taylor helps you on your way.

There are two things you should know about SuperDisk 41.

First, the disk uses the FFS (Fast Filing System) which means the disk can hold an extra 50k of data, but it also means that die-hard 1.3 users can't access the disk, so it's only 2.x and 3.x compatible. Sorry, but very few new programs are written now for the older system.

Second, we're using GuiArc, which is Freeware and was programmed by Patrick van Beem from The Netherlands. It's very user friendly and allows you to unarchive as many of the programs as you like in just one go! Here's what to do:

1) If you don't have a hard disk, then please format three blank disks. See your Amiga Workbench manual for more details.
2) Now, reset your Amiga and boot up from the SuperDisk. Hard disk users don't have to do that, just insert the SuperDisk when you are on Workbench. (If hard disk users encounter problems, then boot from the SuperDisk.)
3) Double click on the Superdisk41 disk icon and then double click on the GuiArc program icon. After 10 seconds or so the GuiArc program will appear. Close the "About GuiArc" information window in the centre of the screen by clicking on it or clicking on its close gadget.
4) Note that there are two sides to this window and both sides look the same. On the LEFT side click once on the button marked "DF0", with the SuperDisk is in your DF0 drive. Wait for the computer to read the disk directory and then double click on the word "Programs" (it's in blue) that appears in the directory listing on the left side of the screen. "Programs" is the directory on which the archived programs are stored.
5) The right side of the screen should be showing the contents of the RAM Disk which is its default directory. This means that the programs on the left will be unarchived (decompressed) to the RAM Disk on the right. You need at least 1.3 megabytes of free RAM if you want to unarchive all of the programs to the RAM Disk in one go. A1200 owners and anyone else with at least 2Mb total RAM should be okay.
   If you don't have that much RAM, then you'll have to de-archive the programs in batches, instead of in one go, or else change the destination to an external floppy or a hard drvive.
   To change the destination directory from RAM Disk, just click on one of the device buttons at the bottom of the right hand window under RAM Disk. If the name of your drive isn't there then click on the DRIVES button on the bottom right half of the screen. A list of your mounted drives appears, so click once on the drive you want to use. If you have a hard disk called Work: then click once on Work: when its name appears in the window. You can then choose a suitable destination directory on your hard disk if you wish.
   Floppy disk users must use the RAM Disk (the default) or an external disk drive (inserted with a blank formatted disk) as the destination device.
6) Click once (on the left side) on the names of the programs that you wish to unarchive. You can select as many you want as long as you have enough free space on the destination drive (on the right). If you don't know how much free space you have then try selecting a few files to start with and see what happens. Please bear in mind that all the programs will NOT fit onto a single floppy disk, except a high density disk if your computer can use it.
7) Now that you've selected some files to unarchive, click once on the button marked Ext/Cp on the LEFT side of the window. Or you can simply press E on the keyboard. A window will pop up where you can follow the computer's progress. The window will disappear when everything is finished.
8) Hard disk users can quit the program and use the new programs which will be on the hard disk. If you unarchived the programs to your RAM Disk then you must now copy them onto a permanent disk, such as a floppy disk, or else they will be lost when you reset the computer.

To copy the programs from the RAM Disk, quit from GuiArc and double click on the RAM Disk icon which is on your Workbench screen. You'll see all the new programs which you've just unarchived appear. Insert a blank formatted disk and drag the new program's icons from the RAM Disk over to the blank disk's icon. The Amiga will copy them onto your blank disk. Only half of the programs will fit onto a single disk, so have another empty disk ready. That's it!

Documentation

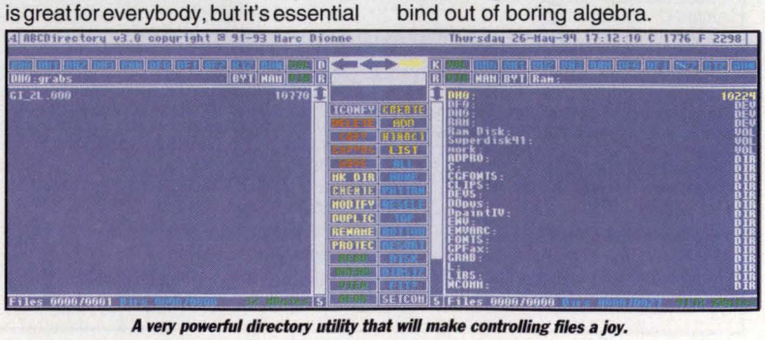
Most of the programs are provided with a documentation file in plain ASCII text (or even in AmigaGuide format for those with this option). We strongly suggest that you read these files, which normally tell you how to install and use the programs that accompany them.

If you double click on a text file from Workbench then the computer will try to load the text viewer program which is named in the icon's ToolType. The default text viewer is "c:more" for text files. You can load the text files into most text editors and word processors, or you can change the ToolType to use the text viewer of your choice. (See your Workbench manual regarding ToolTypes).

Alternatively, copy the program More from the SuperDisk's C: directory to your current C: directory.

ABCDir

For anyone who needs to keep their files under control, this directory utility is great for everybody, but it's essential for hard drive users. A full price utility like this would set you back over £50 and might not offer as much. Copy files, move directories, view text and generally sort your life out. It's easy enough to use and looks very professional.



A very powerful directory utility that will make controlling files a joy.

Bubbles

A small hack that lets bubbles float up your Workbench. Simply double click and quit if you want to get rid of it.

Colors

This is a simple little program that will allow you to change the colour of your Workbench. Last month we had WBVerlauf, which allowed a graduated screen. That's great, but used too much memory for humble owners. Colours can be used by everyone. Isn't it time to get rid of that dull, grey Workbench?

Dqua

Are you having trouble with quadratic equations? This program will solve them for you. If you're doing them for homework, we hope you only use this to check you have the right answer! Dqua is a great program that takes the bind out of boring algebra.

No.41

The One Stop Archive Shop

The Archives at a glance:

abcdir.lha
bubbles.lha
colors.lha
dqua100.lha
du.lha
ezsay.lha
fitdisk.lha
guidocs.lha
iguanaloan.lha
jcgraph.lha
lazymines.lha
menustay.lha
minisola.lha
moontool.lha
move.lha
mriconsort.lha
newext.lha
newmenu.lha
noteit!.lha
pointerX.lha
resumemaker.lha
slect.lha
spleenhack.lha
wipeout.lha
xmodule.lha

DU

This is a command that should be placed into your C directory. The docs explain the usage but DU will assess the sizes of directories for you.

EzSay

Thanks to Wai Hung Lui for sending this program to ***AUI***. It's a replacement speech program that allows more options than the Say tool supplied with the Amiga. Peturb and enthusiasm can be varied. Great fun to play with, you can hear your Amiga answer you back.

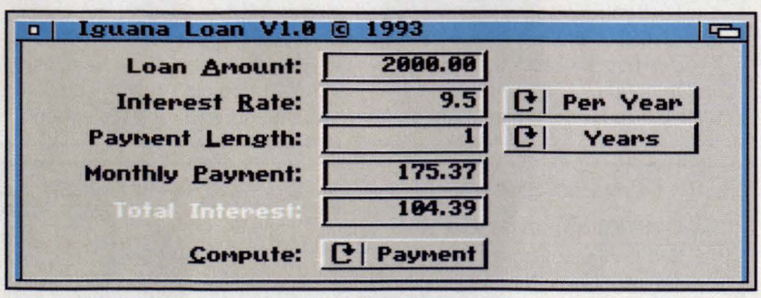
You will have to copy two things from this archive in order to use this program, the translator.library into your libs drawer and the narrator.device into the devs drawer on your Workbench or whichever disk you boot from.

FitDisk

Here's a program that will take files from your hard drive and copy them to floppy for you. The bonus is that it calculates the most efficient way and fits them onto the floppies as best it can to cut down on wastage. This runs from CLI only (which is why you won't find an icon!).

IguanaLoan

Your Amiga can now help with the finances, calculating loan repayments, interest, and rates for you. It's really useful to check out whether the bank is ripping you off. It can calculate everything for you if you supply it with some of the details. Iguanaloan requires the reqtools.library in your libs drawer; you can copy it from the libs drawer on the Superdisk. Simply double click on the Libs drawer icon and then click and drag the library icon into your own library drawer.

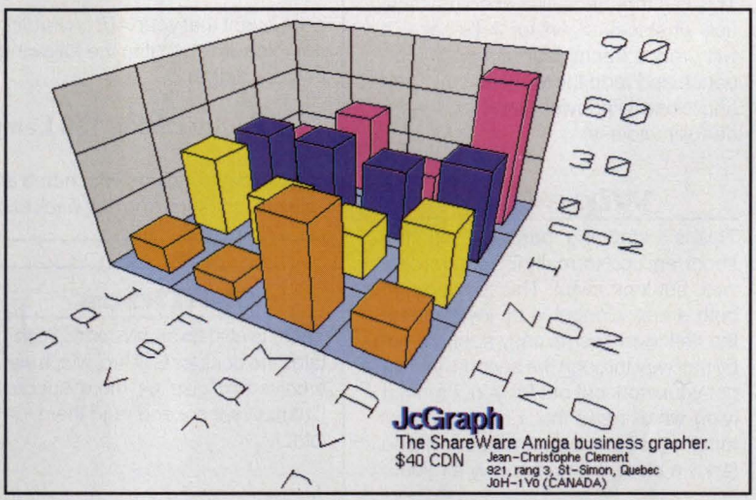


Are you being charged the right interest? IguanaLoan will work it out.

JcGraph

This is this month's star utility. It's not brand new, but we've never featured it before and boy, is it worth having?!

If you input the details of a graph (it will need to be in ASCII), then JcGraph will draw you a beautiful graph.



A 3D graph rendered superbly by JcGraph.

You can have any type from pie to bar to 3D. Even better, you can change the viewing angle so that you get the most impressive results. It's certain to make any presentation or document look very impressive.

It's not overly simple, because it's so powerful and you should read the helpfile in the program for definite. Results can be saved or printed out.

If you've ever wanted to produce a good graph, but given up drawing it, JcGraph will make you very happy.

This program will have to be put onto a disk which is named jcgraph or else assign jcgraph to the relevant drive or partition. When quitting JcGraph, always use the 'Quit' option from the menu and not the quit gadget as this causes problems.

LazyMines

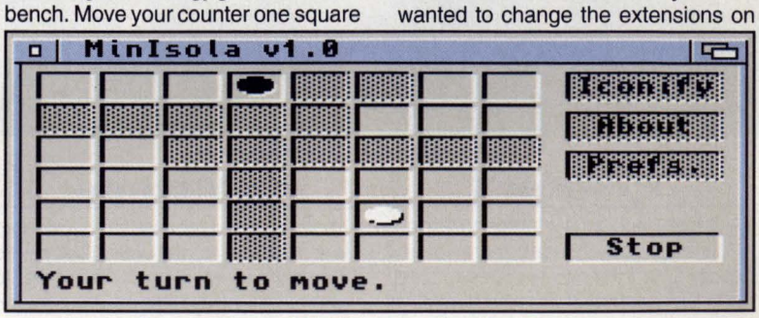
If you have ever used a PC, you'll have seen the game Minesweeper. This is a faithful recreation which will keep you playing until your mind numbs. All you have to do is follow the numbers that tell you how many mines are attached to the square and mark where you think the mines are. Easy. Well...

Menustay

Here is one to dump into your Workbench startup. It makes life easier and saves wear and tear on the poor mouse. It does exactly what it says. Click the right button and the menus will come up and stay up without the need to hold down the button. Simple, but effective.

MiniSola

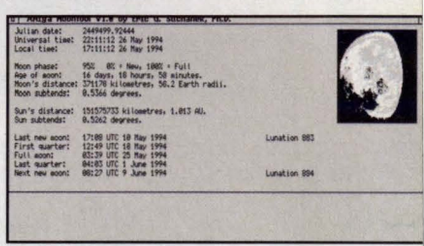
This is a great strategy game for Workbench. Move your counter one square and then choose one to destroy. the computer will do the same until one of you can't move and loses. The instructions can be found by clicking the "About" button in the game.



Another great game in the Mini series. This one's a strategy game.

Moontool

For all the astronomy lovers, this hack is great. It will take the time from the system clock and calculate the state of the moon, displaying various bits of information together with a visual representation of the moon's phase.



If the moon affects your behaviour, keep track of it with this astronomer's dream.

Move

This is another command that can be placed into your C directory.

For usage, see the docs. This move command makes shifting files a very swift business.

MRIconsort

If you open up a directory, you're likely to find an unco-ordinated mess. This program will take it and sort the icons into alphabetical order for you, making it sensible and simple to find everything. It's a lot more effective than trying to do it manually.

NewExt

Another small utility, but one that can make life less hassle. Have you ever wanted to change the extensions on

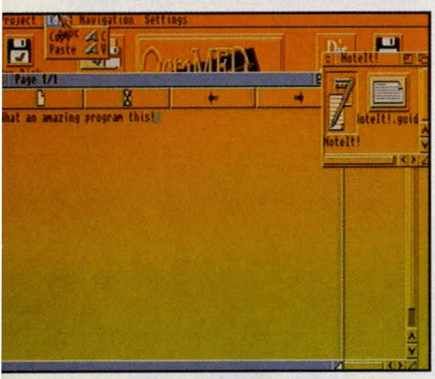
your files, but couldn't face doing a whole batch? No problem. This will let you rename them in one go. .ilbm becomes .iff with a flick of the return key. This is a CLI only command.

NewMenu

This program will spice up the boring look of your menus. It runs by simply changing directory to the relevant one and typing "NewMenu" from a Shell window, but only runs on Workbench 3.x.

NoteIt!

A personal favorite. This is great. It sticks a resizable "Post it" note on your Workbench, which automatically saves and iconifies when you activate another window. It has as many pages as you want and is the answer to all absent minded Amiga users' amnesia. Workbench 3.x.



A great post it note style utility that sticks memos to your Workbench.

ResumeMaker

Want to make a quality CV? Simply answer the questions and ResumeMaker will construct a perfect CV for you. It's a lot easier than constrcting one yourself.

Slect

This is a great prog that will allow you to interupt your startup sequence and then run one of several. Great if you have a number of customised programs that you may not want to run every time you boot. The docs supply the information on how to implement this useful program.

SpleenHack

This is a true hack. It is of no practical use whatsoever! Art for Art's sake. It will draw a fractal leaf on your Workbench and redo the work as you open and close windows. Great and wonderfully useless!

WipeOut

This is a stunning, parrallax scrolling shoot 'em up. Normally PD games play well, but look awful. This is superb in both areas. Control is by joystick and the first level seems easy enough, but by half way through the second, you've got your work cut out for you. I am not lying when I say that I have paid for much worse games than this one. If you fancy a blast, this is definitely for you.



A stunning, new parallax scrolling shoot 'em up.

PointerX

A small hack for Workbench 2 only. Pop this in the WBStartup drawer and every time your pointer goes to sleep and the clock appears, the hands will move round!

XModule

Last, but by no means least, XModule is a sound utility that will allow you to convert modules from one type to another. It's very useful indeed for the musical amongst you. Workbench 3.x.

NO SUPERDISK?

Yes, consult your newsagent! But we've had so many complaints about readers not getting disks that we're trying out a new idea. We can't be responsible for what happens at the end of a long chain of different organisations who handle the magazine when it leaves us, especially outside this country. We know that someone appears to be taking disks off copies of the magazine in some countries but we don't know whether they are being stolen or taken off as a protection against a large sales tax having to be paid.

So what we propose is this: if you live in the U.K. you will have to consult your newsagent in the usual way. However, if you are outside the U.K. we want to help you get the advantages of the SuperDisk so if you send us £1 in sterling (International Money Order etc) to cover postage etc and we will send you the month's SuperDisk. Okay?

Faulty Disk?

In the event that your ***AUI*** coverdisk fails to load (because of a read/write error etc), please return it to the following address for a free replacement. Allow 28 days for delivery.

***AUI* Faulty Disks, 138 Lambeth Walk, London, SE11 6EW.**

Don't forget to include your name and full postal address in BLOCK capticals. Collector's tokens from the back of cereal packets are not required, thank you.

GuiDocs

There is also an archive which contains the docs for GUIArc, which we archived to give us more space. Unarchive them and read them for info.

BBSs

Thanks, as usual, to Simon Gardner of Burning Chrome for his excellent BBS, which you can reach on 0428 727060. Thanks also to Jimbob, the helpful sysop of Walton's Mountain, available on 081 891 5730. Faulty Towers also requires a mention, which is on 0235 535113.

Compatibility

Workbench 1.3 users can't use SuperDisk 41, because it's a FFS disk for Workbench 2 and 3 owners only. (Upgrade! Upgrade!) All programs run on AGA Amigas and any machine running Workbench 2.x or 3.x, unless otherwise stated (check the docs). We've tried all of the programs on an A500Plus, an A1200 and an A3000 and they work perfectly.

If you can't get a program to work then try reading the documentation on the disk carefully. We've tried to make it as easy as possible for you, but if you do become stuck then boot from YOUR Workbench disk (or hard disk) and try to run the program again. If all else fails, good old Andy will be able to help if you write to him at Amiga Answers, but PLEASE don't telephone!

Reader's Contributions

We are always looking for new and original programs to put on our coverdisk. If you would like to see your name and program feature in ***AUI*** then please contact ***AUI*** at the address given in the front of the magazine. Alternatively, give us a call if you think we would be interested in your program (071 487 1072). The shorter the better, under 100k including any libraries – unless it's brilliant! Compiled AMOS programs are welcomed.

Shareware

Just a brief reminder that some of the programs on our Coverdisk are Shareware. This means that you can try them out, but if you regularly use them you should send a registration fee to the author. Registration fees are between £5 and £20 and sometimes the author will send you the latest version in return. You can send an International Money Order, or preferably a cheque but many authors don't accept cheques if they are outside the UK. If you want to risk sending cash in a registered post, it's up to you. We wouldn't advise it but it's your money...

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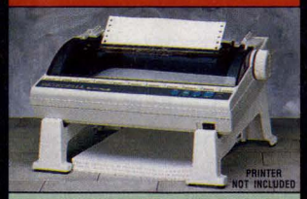
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Printer Switch Box 2 way	£12.99
Printer Switch Box 3 way	£17.99
Printer Stands (Universal)	£7.99
3 Metre printer cable	£6.99
5 Metre printer cable	£8.99
10 metre printer cable	£12.99

PRIMA A500 & A600 RAM

3 YEAR WARRANTY!!

A500 512k RAM expansion (no clock).£19.99

A500 Plus 1 Mb RAM expansion.....£34.99

A600 1 Mb RAM expansion (with clock).....£39.99

32 BIT RAM (for A4000 etc)

1 Mb SIMM.....£39.99
2 Mb SIMM.....£95.99
4 Mb SIMM.....£152.99
8 Mb SIMM £309.99

RAM & CUSTOM CHIPS

SPEED	PLCC	PGA
25 Mhz	£53.99	£69.99
33 Mhz	£71.99	£9199
50 Mhz	N/A	£137.99

1mb by 8/9 SIMMS (1 Mb).....£34.99
4 Mb by 9 SIMMS (4 Mb).....£144.99
1 Mb by 4 DRAMS(1Mb).....£39.99
1 Mb by 4 ZIPS(1/2 Mb).....£22.99
256 by 4 ZIPS.....(each)£5.99
256 by 4 DRAM (DILs).....(each)£5.99
DKB 1202 A1200 RAM board.....£84.99
takes 2 32 bit SIMMs. Has an optional FPU. See above for prices
Kickstart 1.3.....£19.99
Kickstart 2.04.....£24.99
Kickstart 2.05 (for use in A600)...£26.99
Fatter Agnes 8372A.....£26.99
Super Denise.....£18.99
6571-0326 Keyboard controller.£13.99
CIA 8520A I/O controller.....£8.99

AMIGA 1200 RAM

HAWK CO-PRO & RAM

Realise the full potential of your A1200 with this trapdoor expansion. inc real time clock

1 MB RAM.....£98.99
2 MB RAM.....£134.99
4 MB RAM.....£198.99
8 MB RAM.....£394.99
1 MB & 20 MHz CO PRO....£147.99
2 MB & 33 MHz CO PRO....£198.99
4 MB & 40 MHz CO PRO....£294.99
8 MB & 40 MHz CO PRO....£494.99
FULL 2 YEAR WARRANTY

SUPRA A500 RAM

Simply the best! Fits onto the side expansion port Auto configures with no software patching.

8Mb pop to 2 Mb.....£159.99
8Mb pop to 4 Mb.....£214.99
8Mb pop to 8 Mb.....£319.99
8Mb pop to 2 Mb for 2000/1500 range..£149.99

GVP PRODUCTS

A1200 Products

33 Mhz 68882 for A1200 SCSI/RAM.....£77.99
External SCSI kit SCSI/RAM.....£47.99

NEW! A1230 MK II Accelerator Board

Speed	RAM	FPU	Cost
40	0	0	£244.99
40	4	0	£437.99
40	4	40	£535.99
40	8	0	£634.99
50	0	0	£369.99
50	4	0	£564.99
50	4	50	£664.99
50	8	0	£759.99

A1500/2000/4000 Products

HC8+/0Mb drive.....£122.99
HC8+/42Mb drive.....£197.99
HD8+/120Mb drive.....£299.99
PC286 Emulator for HD8+/A530.....£99.99
G-Force 030 40 Mhz 4Mb RAM.....£599.99
Hard Drive mounting kit for G-Force.....£34.99

GVP Simms

1Mb £64.99
4 Mb.....£194.99
1291 SCSI Module for A1200.....£79.99

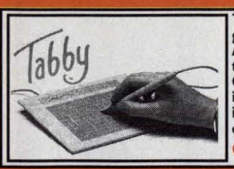
Miscellaneous Hardware

The Serial Link (Adaptor to link CD32/Amiga/PC) only £29.99
Panavision SX-1 (CD32/1200 emulator.....£219.99
XDS Dataflyer External Hard drive kit.....£64.99
DKB Mega Chip II (2Mb chip RAM).....£169.99
gives 2 Mb of chip memory on A500/A1500/2000
ROCHARD DRIVES from £214.99 (42Mb) for the A500/A500+ takes standard IDE hard drives, expandable to 8Mb using 1Mb SIMMS. inc. PSU & installation software
AMIGA 1200/500/600 PSU..... NEW! £39.99
AMIGA 500 Modulator.....£32.99

SPECIAL OFFERS!

Deluxe Paint 4 AGA.....£39.99
Directory Opus 4.....£51.99
Distant Suns 5.....£35.99
Personal Paint V4.....£29.99
Technosound Turbo.....£18.99
Technosound Turbo 2.....£25.99
Wordworth 2 AGA with Print Mgr & Day To Day Planner.....£39.99
XCopy Pro plus hardware.....£25.99
Frame Machine (one only).....£579.99
Video Director 2 (one only).....£579.99
Workbench 2.04 software and ROM upgrade (complete with manuals) only £49.99

Roboshift automatic mouse/joystick switch only £13.99 or £16.99 with mouse emulation and rapid fire push on modules



The amazing new graphics tablet for the Amiga developed with the help of First Computers. 86% rated in ST Format January issue! Requires 2.04 WB or above

only £54.99

SCANNERS

Alfa Data Alfa Scan

hand held scanner with 256 greyscales and up to 800 Dpi

only £114.99
or £139.99 with OCR software

Alfa Data Alfa Colour Scan

18 bit scanner with 256K colours inc colour correction
only £329.99

Power Scanner V4 £119.99

With the latest version 4 s/w for bright & sharp grey scale performance. Flexible scanned image display manipulation options, plus Clean up, embolden, resize & flip.

Colour version only £239.99

EPSON GT6500 Colour Flatbed

only £587.50 phone for details

Art Department Pro Scanner S/W..£109.99
compatible with Epson ES300C, ES600C, ES800C, GT6000, GT6500 & GT8000

MICE & TRACKERBALLS

Alpha Data Mega Mouse 90% rating. 290 Dpi..£10.99 or £12.99 for 400 Dpi version
DATALUX CLEAR MOUSE High quality clear 2 button mouse.....£19.99
Zydec Trackball.....£29.99
Golden Image Trackbail.£37.99

DISK DRIVES



AMITEC 1 mb 3.5" drive

Features Anti Click, Anti Virus, Sony Mech, 2 year warranty

only £58.99

Zappo 3.5 with 10 *FREE* disks only £49.99 NEW!
Cumana 3.5".....only £56.99
1 meg external drive. The best name in disc drives
A600/1200 internal drive.....£53.99
A500 internal drive.....£49.99
A4000 internal HD drive.....£99.99

GENLOCKS

VHS VHSC SVHS SVHSC Video 8 Hi8

hama ON DEMO NOW!

The Professional answer

hama 292.....£269.99
S-Video, and composite compatible
hama 290.....£674.99
S-Video, and composite mixing, plus far more
hama A-CUT Video Editor £185.99 NEW!

GVP Genlock.....only £289.99
features professional SVHS output
Rocgen Plus.....only £152.99
Includes dual control for overlay and keyhole effects, extra RGB pass thru.
Rendale 8802 FMC..only £164.99
Rocgen Rockey.....only £152.99
For creating special effects in video production with genlocks.

ROMBO PRODUCTS

VIDI 12 Real Time £134.99

Real time colour digitizing from any video source. Full AGA support

VIDI 24 Real Time £223.99

24 bit quality real time colour digitizing from any video source. Full AGA support

VIDI 12 AGA £67.99

Full support for AGA chipset. Colour images captured in less than a second, mono images in real time with any video source. Multitasking s/w, cut & paste.

VIDI 12 Sound & Vision AGA

with built in MegamixMaster £98.99

TAKE 2 £35.99

Features include load and save from D. Paint animations and IFF files. Supports HAM graphics.

Megamix Master.....£26.99

8 bit, high spec. sampler. Special effects include echo that can be added in real time, fully multitasking & easy to use.

ACCELERATORS

MICROBOTICS

MBX 1200Z with 20 MHz FPU.....£89.99
MBX 1200Z with 50 MHz FPU.....£214.99
expandible to 8 Mb 32 Bit RAM (see RAM prices)
New M1230 for A1200 withup to 128 Mb fast RAM!
M1230 XA 33Mhz, 0Mb.....£245.99
M1230 XA 40Mhz, 0Mb.....£264.99
M1230 XA 50Mhz, 0Mb.....£334.99
VXL 30 25 Mhz (for A500).....£184.99
VXL 30 40 Mhz (for A500).....£259.99
VXL 2 Mb Ram Board (for A500).....£189.99
expandible to 8 Mb 32 Bit RAM (see RAM prices)

SUPRA 28 ACCELERATOR

for the A500/A500+& A1500/2000
28 Mhz, uses A500 side port so there is no internal fitting

only £144.99!

PRIMA ROM SHARERS

This high quality ROM sharer features a flexible ribbon connection so that it can be positioned anywhere within your A500 Plus or A600. Full 2 year replacement warranty

now only £17.99 or £24.99
for keyboard switchable version

ACCESSORIES

Real Time A1200 internal clock module...only £13.99
Mouse/joystick manual port switcher.....only £13.99
Amiga A500/600/1200 Power Supply.....£39.99
Amiga 500/500 Plus keyboard.....£45.99
Amiga 500 Plus Motherboard.....£29.99
Amiga 500 Plus Case.....£12.99
QUALITY MOUSE MATS.....£3.99
10 CAPACITY DISK BOX.....£0.99
20 CAPACITY DISK BOX.....£2.99
40 CAP LOCKABLE DISK BOX.....£3.99
100 CAP LOCKABLE DISK BOX.....£5.49
*90 CAP STACKABLE BANX BOX.....£9.99
*150 CAP STACKABLE POSSO BOX.....£17.99
*add £3.00 delivery if purchasing just one Posso or Banx box. Normal delivery when purchased with other product or when buying 2 or more.
AMIGA A500 DUST COVER.....£3.99
AMIGA 600 COVER.....£2.99
14" MONITOR DUSTCOVER.....£6.99
NEW! Keyboard Membrane Covers.....£14.95
AMIGA TO SCART CABLES.....£9.99
STD 1.8 METRE AMIGA PRINTER LEAD....£4.99
MODEM AND NULL MODEM CABLES.....£9.99

AMIGA CONTROL STATIONS

A500 or 1200 VERSION.....£36.99
A600 VERSION.....£29.99

DISKS

All disks are 100% error free guaranteed
New High density 3.5 inch bulk and branded
Please phone for best prices!

QTY	Bulk DS/DD	Branded DS/DD
10	£4.49	£5.49
30	£12.99	£14.99
50	£20.99	£22.99
100	£37.99	£42.99
200	£69.99	£79.99
500	£168.99	£190.99
1000	£324.99	£365.99

Branded disks come complete with labels
Disk Labels....500.....£6.99
Disk Labels..1000.....£9.99

SOFTWARE

BUSINESS

Maxi Plan 4.....£24.99
Mini Office.....£38.99
Money Matters.....£35.99

MISCELLANEOUS

Distant Suns 5.....£35.99
XCAD 2000.....£97.99
XCAD 3000.....£289.99

MUSIC/SOUND

Clarity 16 sampler.....£105.99
Deluxe Music Construction Set v2.....£59.99
Pro Midi Interface by Microdeal.....£24.99

Techno Sound Turbo.....£18.99
Techno Sound Turbo 2.....£25.99

PROGRAMMING

Amos Creator.....£34.99
Amos Compiler.....£21.99
Amos 3D.....£25.99
Amos Professional.....£47.99
Amos Professional Compiler.....£24.99
Bliz Basic 2.....£53.99
Devpac 3.....£50.99
Easy AMOS.....£24.99
SAS C Version 6.5.....£234.99

PUBLIC DOMAIN *Top 50 from £1.50!* (many more titles available)

Ami Base Pro v 1.8.....(PDA001) 1 disk.£1.50
Disk Salv V2.....(PDA003) 1 disk.£1.50
D-Copy V3.....(PDA004) 1 disk.£1.50
Edword Pro V4.....(PDA005) 1 disk.£1.50
Easy Calc Plus.....(PDA006) 1 disk.£1.50
E-Type 2.....(PDA048) 1 disk.£1.50
First Mods disk 2.....(PDA056) 1 disk.£1.50
Grapevine 17.....(PDA009) 3 disk.£2.75
Relokick 1.3.....(PDA011) 1 disk.£1.50
Klondyke AGA.....(PDA013) 3 disk.£2.75
First Mods disk 1.....(PDA055) 1 disk.£1.50
Mindwarp AGA Demo.....(PDA015) 1 disk.£1.50
Motorola invaders AGA.....(PDA016) 2 disk.£2.25
Magic Workbench Utils.....(PDA017) 1 disk.£1.50
First Mods disk 3.....(PDA057) 1 disk.£1.50
PC Task Emulator.....(PDA019) 1 disk.£1.50
Reorg V3.1.....(PDA023) 1 disk.£1.50
Spectrum Emulator version 1.7.....(PDA027) 1 disk.£1.50
Spectrum Games Disk.....(PDA028) 1 disk.£1.50
Fit Chix.....(PDA030) 2 disk.£2.25
9 Fingers Rave Demo.....(PDA033) 2 disk.£2.25
Mean CD Machine.....(PDA036) 3 disk.£2.75
Fit Chix 2.....(PDA034) 2 disk.£2.25
The Mini AGA.....(PDA038) 1 disk.£1.50
CD Wars.....(PDA039) 1 disk.£1.50
First Mods disk 4.....(PDA058) 1 disk.£1.50
Andys Workbench 3 Utils.....(PDA031) 1 disk.£1.50
Desert Dreams Demo.....(PDA012) 2 disk.£2.25
Origin Complex.....(PDA040) 1 disk.£1.50
Ray World AGA Demo.....(PDA041) 1 disk.£1.50
CLI/SHELL Help.....(PDA002) 1 disk.£1.50
Clipart 1 - MacArt.....(PDAC01) 1 disk.£1.50
Clipart 11 - Wildlife.....(PDAC11) 1 disk.£1.50
Clipart 3 - MacArt 2.....(PDAC03) 1 disk.£1.50
Clipart 4 - Food.....(PDAC04) 1 disk.£1.50
Clipart 5 - Food 2.....(PDAC05) 1 disk.£1.50
Perspex Hypnosis.....(PDA037) 1 disk.£1.50
Protracker 3.....(PDA046) 1 disk.£1.50
Tetrus AGA.....(PDA043) 1 disk.£1.50
Benchmark Tests.....(PDA035) 1 disk.£1.50
3 Ways to Stop Smoking.....(PDA054) 1 disk.£1.50
Clipart 10 pack.....(PDAC25) 10 disk£12.50
CD ROM drivers (Ami).....(PDACD1) 1 disk.£1.50
CD ROM Bonus Utils.....(PDACD2) 1 disk.£1.50
Megaball AGA.....(PDA050) 1 disk.£1.50
Revelations Slideshow.....(PDA020) 1 disk.£1.50
Deejay Crunchers.....(PDA049) 1 disk.£1.50
Find it.....(PDA052) 1 disk.£1.50
First Fonts Disk 1.....(PDAFO1) 1 disk.£2.50
First Fonts Disk 2.....(PDAFO2) 1 disk.£2.50
First Fonts Disk 3.....(PDAFO3) 1 disk.£2.50

UTILITIES

Amiback Tools.....£39.99
Amiback Plus Tools Bundle.....£74.99
Directory Opus 4.....£51.99
GP FAX 2.3 software.....£49.99
Quarterback V6 *NEW!*.....£52.99
Latest version of this Fast & Famous HD backup utility.
Prima A600/1200 Hard Drive setup software. This is the best setup software on the market.....£5.99
Quarterback Tools.....£54.99
Quarterback Tools Deluxe.....£64.99
Xcopy Pro inc. hardware.....£25.99

VIDEO AND GRAPHICS

Art Department Pro 2.5.....£145.99
Art Department Scanner software.....£114.99
Brilliance Pro. paint and animation.....£119.99
Caligari 24 3D Design and animation.....£94.99
Deluxe Paint 3.....£12.99
Deluxe Paint 4 AGA.....£39.99
Make Path for Vista.....£25.99
Mekon Magic.....£24.99
Real 3D Classic.....£77.99
Real 3D V2.....£389.99
Scenary Animator V4 (3Mb reqired).....£49.99
Video Creator for CD32.....£31.99
Video Director.....£115.99
Video Master.....£49.99
Vista Pro 3 (4Mb required).....£45.99

WORD PROCESSING/DTP

Final Copy 2 (UK) Release 2....*NEW LOW PRICE!*....£48.99
built in outline fonts, full graphics import (IFF and HAM), UK thesaurus, spelling checker & much more.
Final Writer DTP ....*NEW LOW PRICE!*.....£72.99
Penpal 1.4.....£29.99
Best selling feature packed word publisher with database
Pagestream 2.2 U.K. version.....£69.99
Pagestream 3 U.K. version.....£249.99
Pagesetter 3.....£42.99
Pro Page V4.....£109.99
Pro Page V4 & Pro Draw 3.....£159.99
Protext 4.3 W/P.....£39.99
Prowrite 3.3 *NEW!*.....£45.99
Wordworth 2 AGA inc Print Mgr *Special low price!*£29.99
Wordworth 3 *NEW!*.....*LIMITED OFFER!*.....£64.99

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Neptun Genlock
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Just Imagine!

Compiled and edited by Anthony Mael and Martin Witton



Plug it in and away you go - again.

Get Modulated

Silica have, thry told ***AUI***, come up with a solution for Amiga A520 owners who have had difficulty replacing failed modulators. The Amitek Amiga plugs into the RGB/video port at the back of the Amiga and will get people back into action using their TVs and colour composite monitors such as the Commodore 1084S.

Supplied with a manual and cable to connect to a standard RF television socket (aerial input) or monitor, it comes in a tough slimly designed case and is priced at £34.00 inc. VAT.

From any of the 20 Silica stores or by mail order on 081 309 1111.

Better Interactive Disassembler

Helios have announced ReSource Release 6 from the Puzzle Factory, with, they say, an improved GUI. The new GUI is based on the use of floating tool windows rather than the old complex menu driven system. V6 supports the full V39 include release, bringing ReSource up to date with the latest Amiga operating systems. The new ReSource V6 now supports the full range of Motorola CPU/FPU/MMUs, giving for the first time a full capability to disassemble any Amiga program code.

ReSource is compatible with Intuition and provides a public screen. As well as running utilities, V6 has a new command line and Workbench option flags include a Screen Mode requester. The displayable character set now includes all printable characters, including the copyright symbol and International ASCII characters from the Latin1 character set.

The hundreds of symbols menu items have been replaced by a 3-part, scrollable Symbol Requester. The built-in symbol bases now correspond completely with the 39.108 include.i release.

Price £130.00 inc. VAT. contact: Helios Software, 163 Huthwaite Road, Sutton-in-Ashfield, Nottinghamshire. NG 17 2HB. Tel: 0623 554828.

MULTI MONITOR

CD Solutions of California have announced the Amiga 14, a new 14" colour display monitor which, they say, is compatible with all Amiga timings. The picture tube is 14" diagonal (can anyone explain why monitors and TV screens are measured diagonally?), 13" viewable, shadow mask CRT 0.28-mm dot pitch, high contrast glass, non glare with medium short persistence phospher.

Resolutions include: NTSC monitor; DBLNTSC monitor; PAL monitor; DBPAL monitor; Euro36 monitor; Euro 72 monitor; Super72 monitor; Multiscan monitor; VGA monitor; Super VGA monitor.

With analog unlimited colours and a VideoBand width of 65MHz, the active display areas are changed by signal timings.

Contact: CD Solutions, 2551 San Ramon Valley Blvd., Ste 214, San Remon, CA 94583. Tel 510 820 5400.

Turning CD 32 Back to a Computer

The Dutch company Eureka has told ***AUI*** that they have been developing 'Communicator', a hardware and software solution to network a CD32 and an Amiga, so that the CD32 becomes usable as a CD-ROM for the Amiga. At least it's an indication that hardware companies are coming out with such solutions that use the CD32 expansion port, making it considerably faster.

A German company, P&K from Wolfenbuettel, has been creating an expansion box, the RAP, intended to turn the CD32 into a full A1200, including all interfaces, IDE drive and floppy drive. They plan a price of 650 DM - about £250.

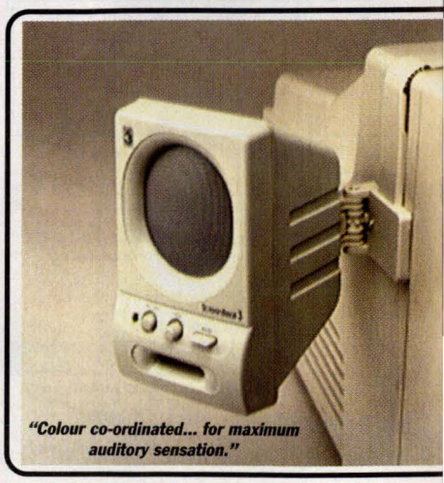
Noises Off

If you want bad taste - or should that be smell? - we've got it!

Where else but kids' joke kits or computers would they produce the "Hilarious Bodily Noise Package"? Better Concepts Inc. (sic!) are offering for just $7.95 - a fiver - a five disk package which they claim, `Will have you laughing so hard, you will wet your pants'! Now isn't that just what you've always wanted a software package to do for you?

The disks, you'll be wetting your pants to hear, include sample burps, farts, coughs, wheezes and many more actual bodily noises. Wow! The mind boggles, the nose wrinkles.. And they want to charge for that? Come to the ***AUI*** Residential Home for Old Farts Inspection Unit and you can have them for free! A program for whoopie cushion fans everywhere.

Contact: Better Concepts Inc. 10 Mandon Terrace, New City N.Y. 10956. Tel: 914 639 5095.



"Colour co-ordinated... for maximum auditory sensation."

Interplay Launched



If youy want to create professional looking program, Interplay makes it easy.

Optonica have started shipping Interplay V1.0, the Amiga based Authoring system for commercial CD32 and CDTV title production. Used to date on Pandora's CD (Optonica), INSIGHT: Technology (Optonica), INSIGHT: Dinosaurs (Optonica), ***AUI*** World First Cover CD, and other titles, Interplay took almost four years to develop in a working DCTV/CD32 title production environment. Interplay, which has already been reviewed in ***AUI***, was written specifically for CD production on CDTV, A570, CD Drive and CD32, with authoring on A2000, 3000 or 4000 with 4 meg ram (minimum) and hard drive.

Lee Gibson of Optonica told ***AUI*** "No programming is required to produce a title with Interplay which means that all the resources you have can be dedicated to the all important task of multimedia design and production."

"As one of the leading companies in the production of Commodore CD-based applications, we have learned the hard way and have built workarounds for our mistakes into Interplay. Interplay has matured and evolved in house over the more than three years of development so that you can easily and quickly show your creative skills to the world."

Interplay is supplied with a runtime player just over 100K in size which is installed on the CD and runs the title with professional smoothness.

The version of Interplay now being released contains, so Optonica have told ***AUI***, a number of important enhancements. A review of the upgrade will be appearing shortly in ***AUI***.

Price £995 inc. VAT & P+P with 25% discount for registered CD32 developers and Educational Institutions.

Contact: Optonica Ltd., 1 The Terrace, High Street, Lutterworth, Leics. LE17 4BA. Tel: 0455 558282.

Calling All Picasso II Owners

Blittersoft have told ***AUI*** that they are now able to take orders from all Picasso II owners for the official Commodore 3.1 release upgrade. The upgrade consists of: ROM chips, full disk set and four English manuals.

Priced £84.95 for A1500/2000 or £94.95 for A3000/4000. Blittersoft say this will allow the Picasso user to display 256 colour Workbench screens, even on non-AGA machines, and also take advantage of 25 colour programs that are OS friendly with the AGA system. Included are system 3.1 improvements in speed and features.

Contact: Blittersoft, 40 Colley Hill, Bradwell, Milton Keynes, Bucks. England. MK13 9DE. Tel: 0908 220196.

AMIGA MARKET SEALED UP

Amiga users looking for the right peripheral will have their task made easier by an official Commodore seal of approval. CBM say this new stamp will be available to peripheral and software manufacturers only on completion of rig-orous tests in Commodore's US and UK offices. The first 'sealed' products will be available soon. Power scanners, disk drives and RAM cards are expected to be among the initial recipients.

Those who can go back a few years in Commodore's history will remember that Commodore used to do this and even bring out their own badged products of this kind in the past. It has been complained that the "seal" is charged for by Commodore and the cost will be passed on to the consumer in higher prices. However, if CBM have checked out the product and ensured that there are no compatibility probelms the extro cost should be worthwhile paying.

And though many of the bandwagonning knockers might not believe it, in the past the Commodore recommendation certainly increased sales and that should lead to lower prices. So perhaps what you would lose on the swings of a "sealed" product...



SOUND SPEAKER SENSE

Today's multimedia requirements need a speaker system that not only sounds good but also complements a modern computer's design, according to Spectra Video.

The ScreenBeat 3 stereo speaker system from Logic 3 features a built-in amplifier and booster circuitry ensuring superior sound quality say Spectra. "It is colour co-ordinated to match most computer systems and has been designed to be mounted on a monitor - for maximum auditory sensation." say Spectra Video.

The speakers are magnetically shielded so as not to cause interference on the screen. They will, claim Logic 3, even accept the sound output from a Walkman or DiscMan. So when you're out jogging, don't forget your ScreenBeat 3...

Price £16.99 for all Amigas.

Contact: Spectra Video, Unit 27, Northfield Industrial Estate, Beresford Avenue, Wembley HA0 1NW. Tel: 081 900 0024.

QUOTES OF THE MONTH

"The image arises of a society in which the people who can afford the products of the superhighway pull up the drawbridge and stay at home for their entertainment, shopping, banking and the rest. Outside, frustration, alienation and lawlessness increase. The business to be in is not information, but security grills". David Guest. PC Week.

It all sounds unpleasantly like "The Clockwork Orange" or "Blade Runner", doesn't it? But it's a sign of the way the world is going that if you check the stock market prices of the security companies they go on rising and rising but Commodore's and many other "information" companies have fallen through the floor...

Remote Media Point

Following the release of MediaPoint 3.27, we have news of MediaPoint Remote Player - a special remote access player which can be updated over a network (ethernet/parnet etc) while it runs. The player will automatically start the script after receiving the data. The price? £159.00.

Also new is the MediaPoint competitive update. Amiga users can update from any Multimedia program (including Helm, Scala, Amiga Vision, Opus, etc) to MediaPoint at a reduced price.(£159.00). Owners of any multimedia program can send back their second disk or manual to Activa International to receive the latest full version of MediaPoint.

Contact: Activa International, Unit 20, Phoenix House, 86 Fulham High Street, London SW6 3LF. Tel: 071 371 5241.

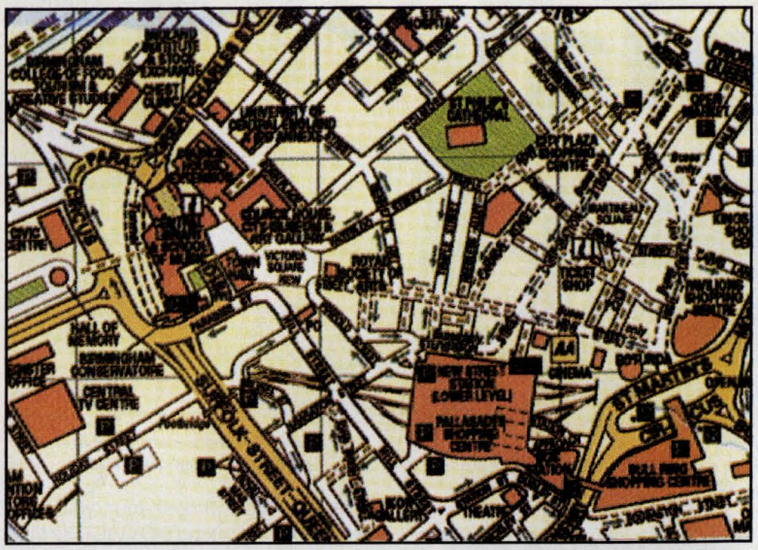
X-CALIBUR Shines

Blittersoft have told ***AUI*** they now handle ("wield"?) the `fabled' (or should it be `fabulous'?) X-Calibur!

The X-Calibur is an expansion/acceleration unit for the Amiga A4000/040. It has the capacity to hold on-board 128Mb of SIMMS (The same standard 72 pin type as found on the A4000), and is a piggy-back board so it is not taking up the Zorro slot. It features memory bursting which doubles memory speed, interleaved memory at 64 bits access for faster speeds, onboard capacity of 128 Mb of RAM.

Blittersoft recommend the X-Calibur is fitted by them or a qualified technician. Price £499.95 for the 25MHz version.

Contact: Blittersoft, 40 Colley Hill, Bradwell, Milton Keynes, Bucks. MK13 9DE. Tel: 0908 220196.



The map gives the route but will it get everyone going the same way and jamming it up?

AA TO DIGITISE TOWN MAPPING

The first 40 digitised town centre plans from the AA were unveiled at the GIS 94 show in Birmingham. The vector basis of the maps will be available for users with specific applications in mind. Key population centres, such as London, Birmingham, Manchester, Edinburgh and Glasgow are covered in the first batch and the series will eventually cover 500 locations in Great Britain. The plans were shown in use as an Automatic Vehicle Location system tracking taxis working in the Birmingham area. Is that on a rainy day?

QUOTES OF THE MONTH

"Competing with Intel is like being in a phone booth with a paranoid bear" Warned InfoCorp Executive Vice President Aaron Goldberg's to Intel competitor, chipmaker Cyrix.

These days the two big computer companies that fill the bank accounts of the lawyers are Microsoft and Intel seem to wake up in the morning and ask themselves."Who can we sue today?" And their lawyers can afford lots and lots of orange juice - mixed with champagne no doubt.

COLOUR INKJET

Integrex have announced an addition to their range of colour printers, the new Colourjet 600 compact inkjet printer, is priced at £259.00. Incorporating inkjet technology, the colour reproduction at up to 300 x 600 dpi, with mono printing at 300 x 300 dpi.

It can be used, say Intergrex, on plain paper or with special Inkjet paper and transparencies. The Colourjet 600 is HP Desk Jet compatible and Integrex can provide a range of drivers including one for the Amiga.

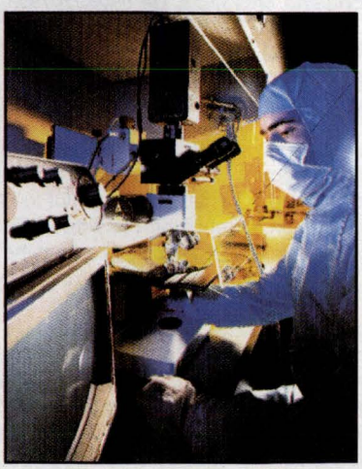
Contact: Integrex Systems Ltd, Church Gresley, Swadlincote, Derbyshire DE11 9PT. Tel: 0283 550880.

SOUND ADVICE

Amiga music software packages experts Blue Ribbon Soundworks (of Bars & Pipes Pro 2.5 and SuperJam 1.1 fame) are now offering free advice to anyone wishing to enter the world of Amiga MIDI music. This service is available to anybody who is in need of 'absolutely any kind' of Amiga music products and also to existing owners of Blue Ribbon products who require technical support.

Open from 11.00 - 16.00 Tuesday and Thursday, Blue Ribbon pledge to answer all calls withim 4 rings.(In which key?) They will also reply to written enquiries.(But they hope to stave off crotchety correspondents with quavery voices who get off the track, no doubt.)

Contact: The Blue Ribbon SoundWorks Ltd., P.O.Box 211, Richmond, Surrey. TW9 3HY. Tel/Fax: 081 332 6959.



More Discs from Disctronics..

ILLEGAL CDs FLOODING IN

ELSPA, the European Leisure Software Publishers Association which represents the computer and video games industry, has warned of a flood of illegal compact discs (CDs) containing either pirated or pornographic material.

The warning follows seven police raids in just 14 days recently, aided by ELSPA's Crime Unit, which have led to investigations into alleged criminal conspiracies to produce and supply illegal CDs. Three police forces are currently carrying out further investigations and six arrests have been made so far.

The huge storage capacity of CDs has led say ELSPA to the coining of the term 'Shovelware' to describe the way hundreds of games and business applications may be illegally copied onto one CD which may then be resold. CDs uncovered by ELSPA investigations have contained up to £20,000 of business and leisure software on a single CD. Titles found were as diverse as Lemmings and AutoCad, the professional design software.

Shovelware? Isn't that what straight portovers from the 1200 to the Amiga CD 32 are called too? Should they be made illegal?

Bigger DISTRONICS

CD-ROM manufacturers Distronics Ltd, who have been responsible for the duplicating of the Amiga CD! World First CDs. are hoping to become the UK's biggest CD and CD-ROM manufacturer by the end of the year. They have announced the successful completion of the first stage of their intensive workplan to become a major service provider to the industry.

Six months after setting up their CD-ROM service division in the UK, Distronics say that the facility is now fully operational both here and in the USA and can handle CD-ROM XA, CDi, CD32 and all other formats. They have already produced what they claim is the world's first Video-CD to the recently agreed international 'White Book' standard, and have just completed - for Castle Communications Plc. - the Pavarotti, Dinosaurs and History of Flight Video-CDs.

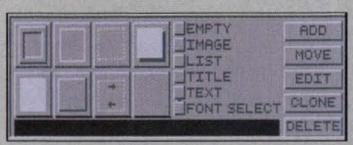
Disctronics are said to be able, in the UK alone, to produce over 1,500,000 CDs a month.

INTERPLAY

THE ULTIMATE CDTV-CD32 AUTHORING SYSTEM FOR THE AMIGA

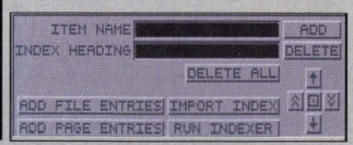
JOIN THE AGE OF MULTIMEDIA - From the authors of the best in Commodore CD multimedia productions comes Interplay, a system which puts sophisticated multimedia production in the hands of the creators and producers, not programmers. Interplay has been designed with ease of use in mind, reducing the time and cost of title production to the minimum. Quick prototyping and WYSIWYG point and click operation make Interplay the ideal tool for commercial producers of CDTV and CD32 titles, of any size. Interplay has been in use, at Optonica, for nearly two years, undergoing refinement over this period and now incorporating CD32 (AGA) support it is ready for release. The commercial possibilities for Interplay are demonstrated by the fact that it was used to produce PANDORA'S CD, INSIGHT:TECHNOLOGY and INSIGHT:DINOSAURS, titles ackowledged as being among the best available for CDTV and CD32. Interplay is totally optimised for CD production, save £1000's on production costs on a single project.

PROFESSIONAL CD32 and CDTV TITLE DEVELOPMENT SYSTEM



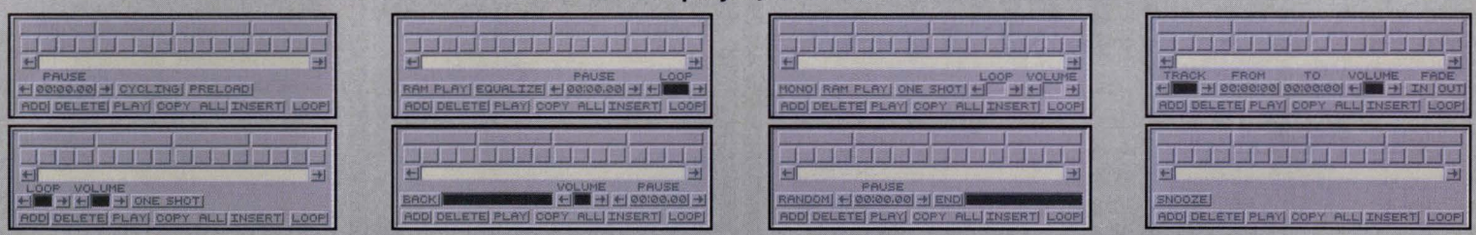


PROFESSIONAL CD32 and CDTV TITLE DEVELOPMENT SYSTEM

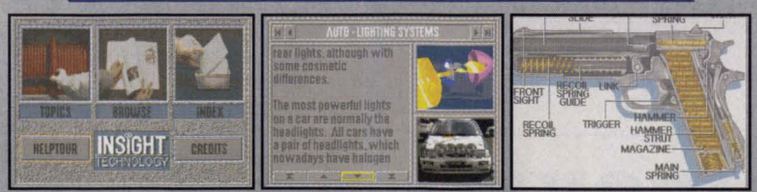


FEATURES INCLUDE

'Point & Click', no programming knowledge required - Supports all Amiga graphics modes in PAL, NTSC, ECS & AGA, Amiga animations (ram loaded or disc spooled) - CCDA audio - 8SVX IFF sound samples (ram loaded or disc spooled) - SMUS and Soundtracker music files - ASCII text files - VAXL motion video - External program launches - Auto PAL/NTSC & ECS/AGA file seek and display for international titles - Text cross reference system - Multi team project imports - Use built in box/button styles or design your own -Sophisticated user selected list authoring - Built in page to page transitions - On line help system - Dynamic colour page remapping - Spool images AND 8 bit audio from CD simultaneously -Works with CDTV and CD32 controllers - Fully multitasking - runs under OS1.3, 2.0 & 3.0 - Supplied with runtime player, no hidden costs.



INSIGHT:TECHNOLOGY



INSIGHT:TECHNOLOGY, lavishly produced by Optonica and published by Commodore gives a fascinating look at modern day technology with pictures, animations, photos, video, narration, text, music and sound effects, over 260 topics in all,every one with a wealth of multimedia material, bringing each subject to life as never before Subject range from the ball point pen to the space shuttle.

INSIGHT:DINOSAURS



INSIGHT:DINOSAURS is the second title in the INSIGHT series, a lavishly produced title rich in multimedia. You can be assured INSIGHT:Dinosaurs will be visually stunning and technically correct as the title is being produced in association with the British Natural History Museum, one of the worlds foremost centres of excellence in the field of paleontology. Also includes quizes, puzzles and dinosaur paintbox.

PANDORA'S CD



PANDORA'S CD shows you just what can be achieved with multimedia and your Commodore CD system, an all original promotional disc containing something for everyone, Five Senses production, the Nuclear industry, number counting game, Milton Keynes guidebook, jukebox, clipart library, photo library, textures library, sound effects library and a sampler of INSIGHT:Technology. Sample the wonderful world of Optonica multimedia.

INTERPLAY AVAILABLE OCTOBER 93 AT £995.00
PANDORAS CD AVAILABLE NOW AT £4.99
INSIGHT:TECHNOLOGY AVAILABLE OCT 93 AT £CALL
INSIGHT:DINOSAURS AVAILABLE NOV 93 AT £39.95

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POWER UP, PRICE DOWN

The A4000 030 has fallen by up to £200.00 in price. The Silica 4Mb/214Mb Hard Drive version is now offered at £999.00 inc. VAT and the 4Mb/540Mb Hard Drive version at £1299.00 VAT. All configurations come bundled with free software - Wordworth, Print Manager, DPaint IV and Silica's Chaos Pack of software worth nearly £126.00 (Chaos Engine, Syndicate, Pinball Fantasies and Nick Faldo's Golf).

The A4000 accelerator has been designed to power up the Amiga and make it run 12 times faster. Other modules planned include a SCSI 2 interface with transfer rates of up to 10Mb p/sec.

In addition, GVP's respected IV24 advanced video and graphics board is now available in two new formats. Both run at double the speed of the original board, when running in a Zorro III slot, and include free, Image FX (worth £179.00). Prices start from £749.00.

Contact: Silica 1-4 The Mews, Hatherley Road, Sidcup, Kent. DA14 4DX. Tel: 081 309 1111.

MONTAGE POSTSCRIPT

InnoVision Technology, creators of Montage for the Video Toaster and Montage 24 for the Amiga, have announced the release of a Montage PostScript module. The add-on module allows the user to scale PostScript Fonts in realtime with an effective resolution of 1 nanosecond. Ultra high-level anti-aliasing is retained at all sizes for, they claim 'dazzling' network caliber output.

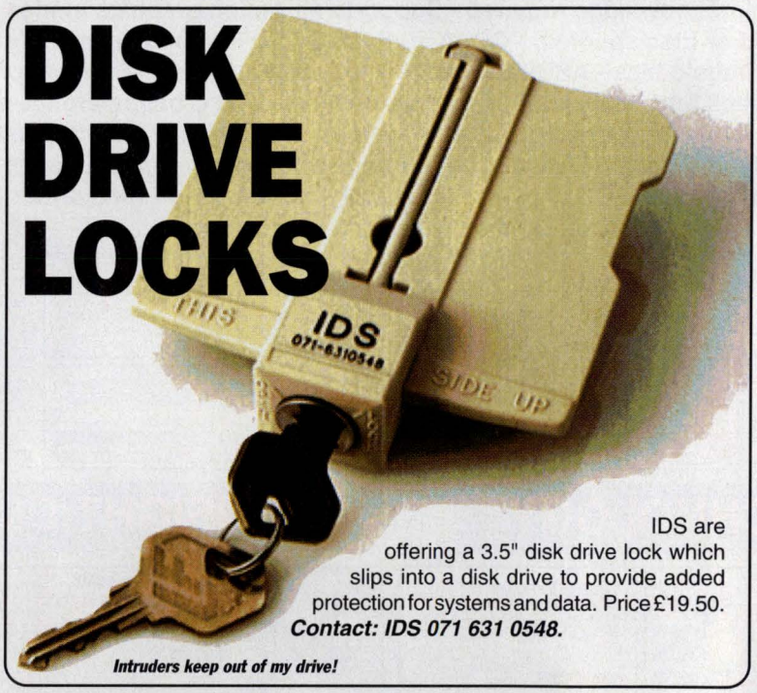
In addition Montage users can add any Character Attribute from the program to the PostScript fonts including Embossing, Colour Fills, Translucency, Multi-Directional Gradient Spreads and more. The Montage PostScript Module also features 10 special PostScript fonts chosen especially for video applications.

The Montage series of programs and add-ons, Innovision told ***AUI***, are now being used by major broadcasting and post production facilities throughout the world.

The release of the PostScript module upgrades Toaster 2.0 and enhances Toaster 3.0, 3.1 or Toaster 4000. Montage 24 owners can also expand their font libraries with the wide range of fonts of the PostScript family. The Montage PostScript Module SRP is $299.95. (About £200)

Contact: Innovision Technology, 1933 Davis Street, Suite 238 San Leandro, California 94577. Tel: 510 638 0800.

DISK DRIVE LOCKS



IDS are offering a 3.5" disk drive lock which slips into a disk drive to provide added protection for systems and data. Price £19.50.

Contact: IDS 071 631 0548.

Intruders keep out of my drive!

"It Doesn't Have To Happen To You"

3M have produced two booklets aimed at increasing awareness of the need for proper data backup. 'Data Loss - It doesn't have to happen to you' - covers why people should back up valuable data and alets them to QIC technology as an alternative to mountains od diskettes.

The other guide, 'Getting the Best from Backup' is aimed at people who already back up to tape, giving advice on care, handling of data cartridges and the implementation of a multi-tape backup calender.

Contact: 3M Data Storage Products Group, Public Relations, 3M United Kindom PLC. 3M House, P.O. Box 1, Bracknell Berkshire RG12 1JU. Tel: 0344 858447.

SPELLCHECKER

From a recent edition of Wired Magazine comes the following attributed to a Microsoft staffer. The French version of Word for Windows, Microsoft's w/p program suggested the alternative 'bitch' for 'woman' while the German version shows interestingly political ideas with its providing of the synonyms of 'exploiter', 'capitalist' and 'bastard' for 'employer'. *(It's a good job that isn't on the Amiga. Anyway get back to the saltmine you two! ED)*

VIRUS CHECKER COMPILATION

Craig Holmes has been telling ***AUI*** about the amount of time and money he has spent providing a variety of virus checkers and killers to Amiga owners. This has, he says, taken place on a non-profit basis, with all funds going to the provision of up-to-date virus checkers.

Now he is set to enter the big time and recoup his losses by charging £1.50 for the latest Virus Checker Compilation which contains, he claims, probably the most up-to-date virus checkers in the country, including Virus Checker 6.41, LVD 1.75 and VirusZ II 1.07. Other virus checkers are available upon request. These programs are updated immediately upon the release of a newer version.

Contributions above the £1.50 are gratefully received. says Craig, and we are not surprised.

Contact: Craig Holmes, 23 Rocester Ave., Wednesfield, Wolverhampton, West Midlands WV11 3AU.

QUOTES OF THE MONTH

"Create chaos rather than wait for your competitors to do it for you", is said to be Silicon Graphics latest slogan. Considering they have been making great efforts to sell their expensive kit to computer games companies that idea should strike a familiar chord with those particular potential customers.

QUOTES OF THE MONTH

"Let's admit it - software is never finished. As a result, we have developers who want to perfect their masterpiece by spending another year on it" Christine Comerfort - President, Corporate Computing Inc. They say the last 10% of getting anything right takes up 90% of the effort - and it certainly seems the way in computing. How many times have we shuddered when someone has told that "The program is 90% finished." Only to wait months or even years for it to be completed.

QUALITY PERIPHERALS FOR THE AMIGA

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Designed to bring you high quality and performance at affordable prices, AmiTek peripherals offer outstanding value-for-money. They are built to ensure easy fitting and trouble free operation - making them a pleasure to use. AmiTek products are also thoroughly tested and very reliable, so reliable that we are pleased to offer a full two year warranty on the AmiTek products detailed here.

RAM UPGRADES

AMITEK FOR A500/A500PLUS/A600 - 2YR WARRANTY

CODE	DESCRIPTION	INC VAT
RAM 0505	A500 - 512K (No Clock)	£20
RAM 0510	A500 - 512K (With Clock)	£25
RAM 0520	A500PLUS - 1Mb RAM	£30
RAM 0605	A600 - 1Mb (No Clock)	£30
RAM 0610	A600 - 1Mb (With Clock)	£40

PCMCIA CARDS

AMITEK FOR AMIGA 600/1200 - 2YR WARRANTY

CODE	DESCRIPTION	INC VAT
RAM 6020	A600/1200 - 2Mb Card	£119
RAM 6040	A600/1200 - 4Mb Card	£179

MODULATOR

AMITEK FOR ALL AMIGAS



The AmiTek External Modulator makes an ideal replacement modulator for all Amiga owners. Everything needed is supplied. Like all AmiTek peripherals, it comes with an easy to follow manual.

- User friendly manual included
- High quality design
- FREE RF cable supplied

MODULATOR
£34
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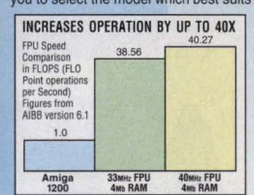
HAWK RAM UPGRADE & MATHS ACCELERATOR

AMITEK

FOR THE AMIGA 1200



Maximise the processing power of your standard A1200. Be ready for the new generation of software which makes more demands on Amiga memory and technology. The AmiTek Hawk RAM expansion includes up to 8Mb fast 32-bit RAM, the ability to support a sophisticated 68882 FPU (Floating Point Unit - drastically increases the speed of maths intensive operations) and a battery backed up clock. Built to a high standard, this board can be easily installed and comes with a 2 year warranty. The Hawk RAM board is available in 9 pre-configured versions enabling you to select the model which best suits your requirements.



- Plugs straight into A1200 trapdoor - No soldering required
- Upgradeable FAST RAM board to 1, 2, 4 or 8Mb
- Uses industry standard socketed SIMMs for easy upgrades
- Two types of optional Floating Point Unit - 33MHz or 40MHz PLCC 68882 co-processor
- Comprehensive manual with illustrations
- Works with all A1200 and A1200HD computers
- Does not invalidate your A1200 warranty
- 2 year warranty

	NO FPU	33 MHz FPU	40 MHz FPU
1 Mb RAM	£99 INC VAT - RAM 1210	£159 INC VAT - RAM 1213	-
2 Mb RAM	£139 INC VAT - RAM 1220	£199 INC VAT - RAM 1223	-
4 Mb RAM	£199 INC VAT - RAM 1240	£259 INC VAT - RAM 1243	£299 INC VAT - RAM 1244
8 Mb RAM	£399 INC VAT - RAM 1280	-	£499 INC VAT - RAM 1284

PRICES FROM ONLY

1Mb RAM, NO FPU
£99
INC VAT - RAM 1210

1Mb SONY 3½" DELUXE FLOPPY DRIVE

AMITEK

FOR ALL AMIGA COMPUTERS



'Amitek's new disk drive combines an elegant design, high build quality and smooth performance in a very affordable package. Highly recommended'. Jason Holborn - Leading Amiga Journalist

DELUXE FEATURES

The AmiTek drive has been specially designed to meet the needs of Amiga users and has many deluxe features which are not included in other drives - check out the competition!

ANTI-CLICK

The anti-click feature stops your drive from making lengthy whirs and clicks that occur when the drive is empty and searching for a disk.

ANTI-VIRUS

The switchable Anti-Virus mode stops track 0 viruses infecting the disk while in the drive. Yet, unlike many other drives which have virus killers, this Anti-Virus mode can be disabled, allowing some fussy copy protected software to run.

ADD ADDITIONAL DRIVES

As a double sided mechanism, the AmiTek drive gives 880K of disk space after formatting. It is also daisy-chainable, which means that you may add further drives to your system and, uses very little power from your Amiga.

HIGH QUALITY SONY MECHANISM

AmiTek took the time to source a mechanism that has all the features, quality and reliability that Amiga owners have been crying out for. After vigorously testing Sony's mechanism, it proved to be the best by far available.

Details taken from models available MARCH '94	ANTI-CLICK	ANTI-VIRUS	ROBUST STEEL CASE	QUALITY SONY MECHANISM	TOP RATED CU-AMIGA MAY '94 90%	2 YEAR WARRANTY
AMITEK	✓	✓	✓	✓	✓	✓
CUMANA	–	–	–	–	–	–
ZAPPO	–	–	✓	–	–	–

- HIGH QUALITY 3½" SONY MECHANISM
- STRONG METAL CASING
- BUILT-IN ANTI-CLICK FEATURE
- SWITCHABLE ANTI-VIRUS MODE
- ENABLE/DISABLE SWITCH
- 75MS ACCESS TIME
- DAISY CHAINABLE VIA THRU PORT
- LOW POWER USAGE
- NO NEED FOR EXTERNAL PSU
- 2 YEAR WARRANTY

EXTERNAL DRIVE
£59
INC VAT - DRI 1159

1Mb INTERNAL FLOPPY DRIVES

AMITEK

FOR AMIGA 500/500PLUS & AMIGA 600/1200

These internal AmiTek replacement drives are ideal for users who wish to replace their existing internal drive.

The packs feature a high quality internal 1Mb 3½" drive mechanism for the Amiga 500/500PLUS or Amiga 600/1200. All you need to fit your drive is included, plus easy to follow fitting instructions and 24 months warranty.



2 YEAR WARRANTY

A500/A500PLUS
INTERNAL DRIVE
£44
INC VAT - DRI 3600

A600/A1200
INTERNAL DRIVE
£44
INC VAT - DRI 3605

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Before you decide when to buy your new Amiga products, we suggest you think very carefully about WHERE you buy them. Consider what it will be like a few months after you have made your purchase, when you may require additional peripherals or software, or help and advice. And, will the company you buy from contact you with details of new products? At Silica, we ensure that you will have nothing to worry about. With our unrivalled experience and expertise, we can meet our customers' requirements with an understanding which is second to none. Complete and return the coupon now for our latest FREE literature and begin to experience the "Silica Service".

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LONDON	52 Tottenham Court Road	071-580 4000
LONDON	Debenhams - (3rd Floor), 334 Oxford St	071-493 3735
LONDON	Selfridges - (Basement Arena), 369 Oxford St	071-629 1234
LUTON	Debenhams - (1st Floor), Arndale Centre	0582 21201
MANCHESTER	Debenhams - (3rd Floor), Market Street	061-832 8666
PLYMOUTH	Debenhams - (3rd Floor), Royal Parade	0752 266666
SHEFFIELD	Debenhams (3rd Floor), The Moor	0742 768611
SIDCUP	1-4 The Mews, Hatherley Road	081-302 8811
SOUTHAMPTON	Debenhams - (1st Floor), Queensway	0703 223888
SOUTHEND	Keddies - (2nd Floor), High Street	0702 468039

To: Silica, AMUSR-0894-213, 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX

PLEASE SEND ME AN AMIGA CATALOGUE

Mr/Mrs/Miss/Ms: ..... Initials: .....

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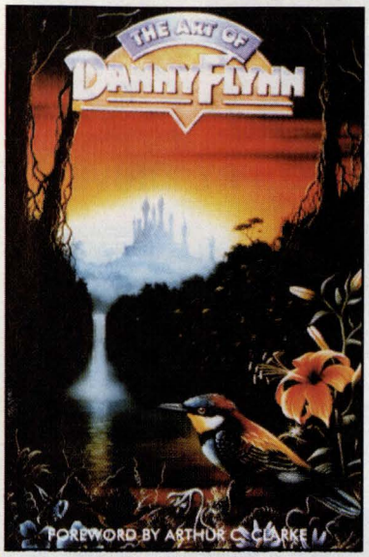
Tel (Work): .....

Which computer(s), if any, do you own?

.....

213C

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Art that is "In like Flynn"

JUST VISITING

Only Visiting This Planet - The Art of Danny Flynn is due for publication shortly and contains a collection of over 100 of his vibrant paintings which range from horror fantasy to a more gentle fantasy style enriched by his fascination for nature. The paintings include book covers for titles such as Ruth Rendall's The Wexford Omnibus as well as computer game box covers from Gremlin Graphics and Hewson Games. His latest creations include Microprose's UFO Enemy Unknown. Priced £10.95.

From Paper Tiger, Dragon's World, 26 Warwick Way, London SW1V 1RX. Tel: 071 976 5477.

HACKERS BEAT MICROSOFT

While corporate users are becoming increasingly eager for Microsoft to deliver the beta version of Windows 4.0 - or at least that's what Microsoft would have the world think - hackers have taken matters into their own hands and delivered the latest version on pirate bulletin boards across the US.

The so-called "M6 Minus build" of Chicago, which is the latest version of Windows, that Microsoft claimed to have delivered to about 50 sites last month, has been spotted on a number of pirate BBss. This latest release, the first to include Chicago's new user interface, appeared on pirate boards recently and is now being, Microsoft might not be so happy to discover "beta tested" by not so scrupulous users around the network. Will anyone in possession of a copy garnered from the networks kindly send a report of what they think of it and bugs they have found to Microsoft? Who might - or might not - express their gratitude..

10,000 computer artists

Almathera, supplier of CD ROM software for the Amiga, see review of Video Creator in this issue, has announced the first ever CD ROM disc showcasing work from the cream of the industry's emerging talent. Almathera's latest CD release - EuroScene 1 - contains over 600 megabytes of Amiga demos, graphics and music selected from works deposited on the European Demo Scene (EuroScene) service by over 10,000 active computer artists and programmers.

The EuroScene service has traditionally been used by amateur and professional computer artists and programmers to demonstrate their abilities to the industry in the same way that traditional artists prepare a portfolio.

Included on EuroScene I are new classic productions from leading and emerging computer artists making it the showcase for this futuristic art form. EuroScene I files can be uploaded from any system with a CD ROM drive and ISO level I file system including Amiga CD-ROM systems. Price £14.95.

Contact: Almathera, Southern House, Boundary Business Court, 92-94 Church Road, Mitcham Surrey, CR4 3TD. Tel: 081 687 0040.



ROSEN'S THEORY

Ron Rosen who is perhaps the most famous investor in high tech companies becomes closely involved in the companies he funds. And he has been phenomenally successful. Do you want to know his secret? "There are four things needed to be successful in venture capital. You need a small company with a terrific product, great people who will die to make the product, close involvement yourself and most important, for dramatic astronomic success, to be in at the birth of a dynamic new industry."

Now doesn't that exactly sound exactly like what ***AUI*** was and ACD! is now? Well, maybe...

SEEN IN AN AD FOR GULTRONICS

(They used to be a notable Amiga seller too!)

Zenith Data Systems Z-Lite 320L

* Fast 386SL/20Mhz Intel 3.3V processor
* 80MB Hard Disk
* 6 Hour battery life
* 2 PCMCIA ***SOTS***

Whtsh thshatt? Ish the Peeshee market drunk with itsh power?

LASER UNDER £500



Laser quality coming down to bubble jet price.

The price of the multi-award winning Ricoh 1200 Laser Printer has dropped to under £500.00, bringing, say Silica, laser quality print output within reach of the average computer user.

Silica are offering this 400 dpi, 6 pages a minute, 2Mb memory printer at £499.00 ex VAT. The Ricoh comes supplied with a free specially devised printer driver not previously available. It is suitable for all Amigas and can be expanded to 4Mb RAM and have 14 bitmap and 8 scalable onboard fonts enlarged with IC cards.

The printer features an expansion slot for hard drive and LAN cards, serial and parallel ports, an IC slot and firmware ROM which can be constantly updated with new control languages to improve the printer's performance.

Contact: Silica, 1-4 The Mews, Hatherley Road, Sidcut Kent. DA14 4DX. Tel: 081 309 1111.

DUTCH AUCTION?

The continuing price war between Intel and PowerPC has resulted in Motorola announcing prices for its low power 603 processor starting at less than $200, while Intel is expected to further accelerate the speed at which it drops Pentium processor prices.

Intel had planned to drop 66MHz prices from $725.00 to $595.00. It now appears that it expects to hit $472 and the 60MHz Pentium will drop to $370.00.

A 66MHz 603 which should be comparable to a Pentium at the same clock speed, will cost $160.00 in the 20,000-off quantities which IBM and Apple are expected to purchase, and the 80MHz version will cost $199.00.

So the survival of Commodore could see an affordable price very, very fast (80MHz!) PowerPC-based Amiga.. Anybody want to start by buying 20,000 chips and holding them for a revived CBM? ($? It's about 70p)

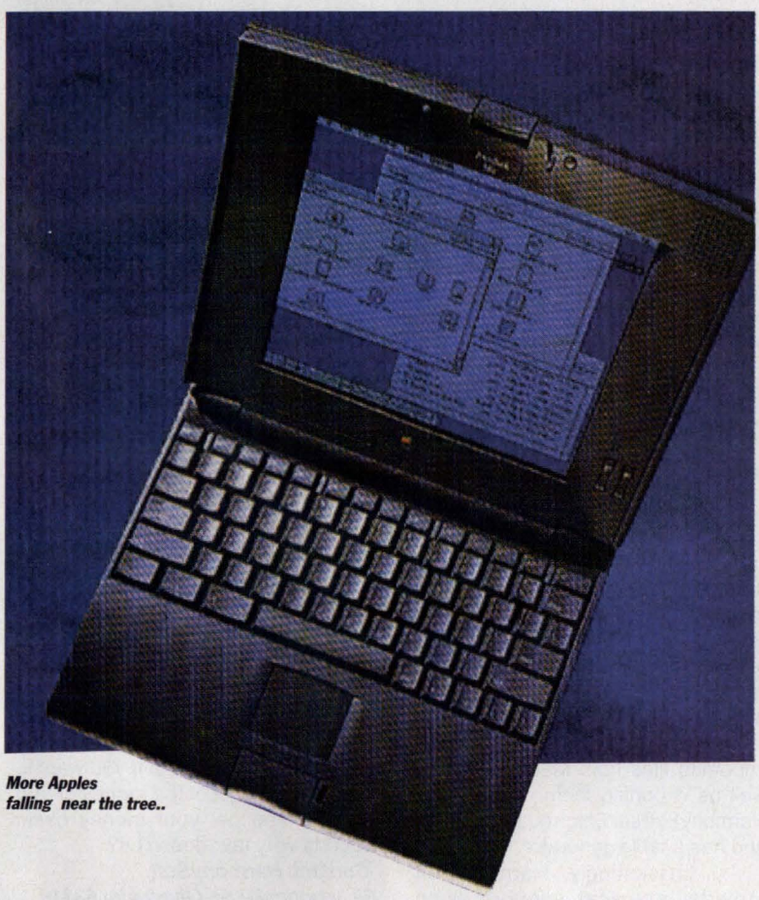
Don't believe all you read...!!

Zybrainics, a small American company have developed a software program called SportsWriter. And that is exactly what it is. They believe they have discovered a market in the thousands of local rags who cannot afford to employ a sports writer of their own of the human variety.

The 'expert' system prompts the editor for the teams' names, the score, the performance of the outstanding players on each side and the location of the match, then writes the story.

Having collected this information by telephone (no, it doesn't do that as well!) SportsWriter will do the rest and each story reads a little different from the one before.

Could Zybrainics - and with a name like that they could probably do anything - produce a program called "Computer Magazine Writer"? Some magazines we know could certainly use it. *(Not **AUI**! ED)*



More Apples falling near the tree..

Apple Power Gets To The Core

Apple have launched four notebooks and two sub notebooks which are the first to use the Motorola 68040 processor and the first machines to provide optional support for PCMCIA cards.

All the new models will be upgradable to the PowerPC 603 processor - a policy Apple has already adopted in its desktop product line.

The PowerBook 500 series incorporate a solid state touch pad instead of the more traditional trackball and have 'intelligent' NiMH batteries which allow much more accurate measurement and management of battery life.

And someday we may plug them into the PowerAmiga...



Don't Get An Eyeful

Computer Optics – about not getting an eyeful..

Computer-designed optics are the latest thing to protect your eyes when viewing monitors or the TV, according to Gepro. One size for men and women, or clip on style, the specs are claimed to absorb reflective glare, soften light from the screen, prevent eye fatigue and, say Gepro, offer 100% eye protection.
Contact: Gepro, 132, Heathfield Road, Keston, Kent BR2 6BA.
Tel: 0689 851 206.

TOTALLY SCANTASTIC

Epson has produced a free illustrated guide explaining the basics of owning, operating and making the most of desktop scanning. The 100 page guide explains how scanners capture text and images before translating them into a form which can be handled by a computer. It explores the many ways of acquiring manipulating, using and storing images as a means of increasing productivity and creativity.

The guide covers all forms of scanner technology including sections on optical character recognition, as well as offering practical advice about displaying images on a screen.

For a free copy of 'The Totally Scantastic Guide to Desktop Scanning'.
Contact: Epson UK LTD, Campus 100, Maylands Avenue, Hemel Hempstead, Herts. HP2 7TJ.
Tel:0442 61144.

Really The Smallest?

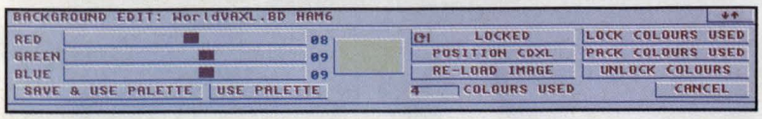
Olivetti has launched a portable inkjet printer for £249.00, in a bid to capture 10 per cent of the portable printer market.

Weighing in at just 1.1 kg, the JP50 is claimed to be the smallest portable bubble inkjet available, as well as the first to run off batteries.



PrintSide Story.. With an inkjet in your pocket..Cool,boy!

Optonica Gets on VIDEOSTREAM





Different views of the same event.

Optonica, the people who brought out Interplay for CD32 title development, (see earlier news item,) are soon to enliven the Amiga production environment with another important software release. They have decided to go commercial with Videostream, a sophisticated, automated, CDXL production system.

At the moment CDXL digital video is, say Optonica, under utilised on both CD32 and the Amiga simply because the tools to produce and edit these files are virtually non-existent or very difficult to use, although replay has been available for some time via Scala and Mediapoint on the Amiga and Interplay on the CDTV and CD32.

Videostream, Optonica told ***AUI***, is to CDXL video what Interplay was to CD title production, a versatile point and click production environment allowing non-technical producers access to technical digital media.



Optonica's Videostream, bringing power to the Amiga vide scene.

To produce a CDXL file the operator chooses a source by setting video in and out points, naming a 24 bit or Amiga images sequence and/or an Amiga IFF animation, these may be mixed in any combination. An optional background may be added, Videostream has built-in image processing functions for isolation of background colours. Finally, select the type of CDXL to create with control over width, height, display mode (all supported including AGA), audio sample rate and playback speed (150K, 300K or custom for hard drives). Hit create CDXL and, Videostream will, Optonica told ***AUI***, process and scale the sources, grabbing sound and vision automatically from video and produce a final single CDXL file, all without further intervention from the user.

Lee Gibson pf Optonica says that if you wish to edit CDXL files Videostream has a frame by frame step time editor and built-in functions to insert and append frames, sequences and other CDXL files, trim frames, breakout frames to ILBM sequences, breakout audio and dub in audio.

"As digital video is usually image led, you may want to process the audio after creation, this is simplicity itself with Videostream's built in digital audio editor. For example, you can extract audio from a created CDXL file, edit the sample within Videostream on a frame accurate basis, blend in new sound effect and then re-insert the audio back into the CDXL file ready for use."

Videostream, Gibson told ***AUI***, will be shipping in the next three months and will be supplied with suitable hardware for grabbing, sampling and video deck control all in the package. Details of release date and pricing are sketchy at the moment, but Videostream, which could prove an important development for the Amiga in video, seems to be about to become available and could play a key tole in video developments on the Amiga.

Contact: OPTONICA LTD
1 The Terrace, High Street,
Lutterwirth, Leicestershire,
LE17 4BA Tel: 0455 558282

STYLUS PRO-PAK

Stylus Inc, based in the pleasant state of Colorado, have told ***AUI*** that they are about to bring out a professional bundle for graphic artists called, surprise, surprise, The Stylus Pro-Pak.

The new pack features ProVector 3, whoch Stylus say is a major update of their structured drawing program. It also contains Stylus Tracer which Stylus believe is "an eagerly-awaited auto-tracer"; PSimport, a PostScript import utility for ProVector and RexxRequest, an ARexx command host for adding Intuition requesters to ARexx macros.

Jeff Blume of Stylus told ***AUI*** "Even previous ProVector users will be impressed by the power and ease of use of ProVector 3. In addition to countless new features, ProVector has undergone a thorough interface lift."

Now that's a nice new word isn't it? An interface lift. We know a few programs that could do with one of those.

Jeff Blume says that the "interface lift" has been the result of incorporating the latest Amiga technology and also getting feedback from users.

Some of the new features are AGA support, a 2.X "look and feel"; powerful new gradient fill options, new object effects including perspective, blending, skewing, mirroring, warping etc; object masks; and support for more formats including the about to be separately released LightWave from NewTek.

It also has added improved text support, including built-in PostScript type 1 support, text blocks and text effects. And, as is obvious, ARexx, content sensitive and on-screen Help via AmigaGuide.

Among the features that aren't new is one that we all very much need; the ability to create pages 15 miles by 15 miles. Yes, folks, use the Stylus Pro-Pak and we can have a genuine city-size ***AUI*** - but you won't be able to put it in your pocket and take it to the loo with you, unless you have a very, very big loo.

The whole package sounds very interesting especially Stylus Tracer which Chuck Baldwin, VP of Stylus describes as " State of the art in autotracing with no apologies to any computer platform. Stylus Tracer has more accurate and efficient tracing algorithms, as well as more features than any other tracer including Adobe Streamline."

The package should be out later in the Summer but pricing is yet to be announced.

Contact: Stylus Inc. P.O.Box 1671 Ft Collins, Colorado 80522. Tel: 303 484 7321

Rashumon.. Try Before You Buy

HarmonySoft have told ***AUI*** that have released a new version of their multilingual graphic word processor. Now we have to confess that we hadn't heard of the earlier version but some excuse could be that HarmonySoft are based in Israel which has not been big on the Amiga scene too often. However, Israelis are known to be hot programmers and it is said that that there are more programmers in Tel Aviv than any other single place in the world except San José in the heart of Silicon Valley.

HarmonySoft have told ***AUI*** that their w/p program is called Rashumon which is not, as you might think, a Hebrew word but refers to the classic Japanese movie of the same name which had four different characters each giving their varying versions of a single event. This seems appropriate as HarmonySoft emphasise the multilingual aspect of their program.

Michael Haephrati,the creator of Rashumon, said that it supports languages written from right to left as well as left to right. Very useful, doubtless in Israel and for anyone using Hebrew around the world.. It can also, he told ***AUI***, be used as a regular graphic word processor. It supports graphics import and export, importing files from Mac and PC as well as exporting them. It produces, HarmonySoft said, high quality printing. and has a table generator.

Interestingly, HarmonySoft provide technical support using Internet. So you shouldn't have any trouble contacting them.

The latest features added in this the 3.0 version are: * Full Postscript level 2 support (including 1.6m color and grey scale support; change text size without effecting the fonts.

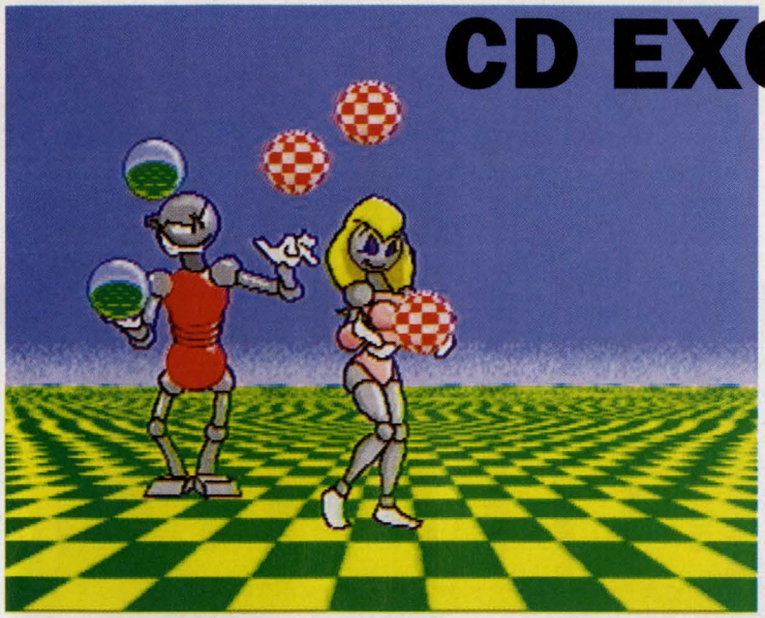
Rashumoon requires an Amiga with OS compatible with Workbench 2.04 and a harddisk. Price £80.

Harmony Soft have a rather nice "Try and Buy" idea. You pay £15 which is refundable and you can try Rashumon for 4 weeks. If you want it, you send the rest of the money or you return it and get your money back. Sounds very fair, doesn't it?

Contact: HarmonySoft,
69 Jabotinsky St. Givatayim 53319
ISRAEL, Phone/Fax: + 972 3 315 967,
Email:harmony@ccsg.tau.ac.il,
HarmonySoft say they would welcome distributor or dealer enquiries.



CD EXCHANGE



A shot from one of the Schwarz animations on Volume One.

CD Exchange have released Volume One of what they told ***AUI*** would be a PD/Shareware collection. This one has Games, Graphics, Animations, Music and Fonts and Clip Art. It boots on the CD32 with a set of menus which are intended, CD Exhange say, to make life easier for the newcomer. These menus will allow access to the programs.

More importantly, the CD has transfer support to allow you to link the CD32 to another Amiga and transfer the programs. Of course the necessary cables are needed, but the CD32 is taking a step closer to resembling its sibling the A1200.

Price: £31.99 Contact: CD Exchange, Unit D5, Hi-Tech House, 10 BlackFriars Street, Norwich, Horfolk, NR3 1SF. Tel: 0603 666202.

BASIC Instinct

HiSoft have recently brought out version two of HiSoft BASIC, designed to be a complete development system for both the professional and casual user. How many casual users will want to skip through the 640 page manual is another matter!

BASIC V2 works with all Amiga operating systems from Workbench 1.3 up to Workbench 3.1. It features a debugger to help you work out where it all went wrong and they claim will allow "modern, structured programming with a high degree of portability between different machines."

The graphics commands are also designed to take advantage of the AGA chipset if available.

A full review will appear in ***AUI*** next issue, but if you can't wait, HiSoft BASIC 2 costs £79.95.

Contact: HiSoft, The Old School, Greenfield, Bedford, MK45 5DE. Tel: 0525 718181.

PENTIMEDIA: The Ultimate Portable?



Pentimedia - loudspeakers for ears and CD Rom too.

Is The Pentimedia Notebook the Ultimate Portable as is claimed for it. (We hate the word ultimate! Of course it is "ultimate' which only means "last" - so far!) It sure looks state of the art at the moment. It has every feature you can think of. They include:

Intel 586 Pentium CPU
Local Bus Video/IDE
Built in Speakers & microphone
Internal PCMCIA III & Fax/Modem
Removable/upgradable: CPU, LCD, HDD, & RAM

It also features a colour LCD screen and weighs only 6lbs. If you find that you need to expand even more a mobile docking station is available. This is a roomy docking station into which the notebook slots. The main features are: 3 add on card slots. CD ROM/FDD and 3.5" HDD bays built in Optional attachable speakers.

Prices start start £1300 for Mono and around £1750 for colour. The docking station will retail for around £399

Those loudspeakers may look like Dumbo's ears but they are a sign of things to come - hifi portable computer sound and so is the CD. Watch out for more of them. Oh for someone to take the Pentimedia and build in an Amiga CD32. What a PC emulator!

Contact: DUAL Group Ltd, Unit D4, Button End, Harston, Cambridge, CB2 5NX. Tel: 0223 872622

Neptun Genlock

The genlock that provoked interest at the CeBit '94 show in Hanover is now being marketed in the UK. Retailing at £549, the Neptun genlock features a separate Microprocesor, Auto Fade control, ARexx software control and a Standby mode.

It allows composite video, Y-C and RGB input and has the same ouput options.

Contact: HiQ, 176 Kenton Lane, Harrow, Middlesex, HA3 8SU. Tel: 081 9092092.

Magic Saving

The latest in customisation has arrived from HiSoft. Maxon Magic allows you to choose from a plethora of screen savers to entertain as well as protect the monitor with the option of adding music to run concurrently. Other system events, from key presses to to mouse clicks or clock times and disk changes, can be made to activate samples.



Very fishy! This screen blanker is one of the many options from Maxon Magic.

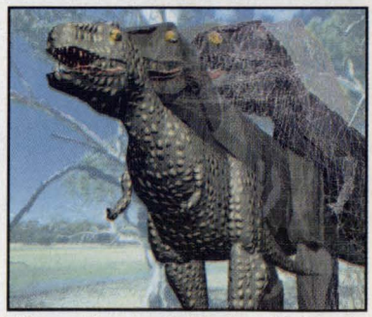
Maxon Magic requires a 1 Meg Amiga and recommended for a hard disk. Would you really want this program running on floppy?

Price: £29.95 Contact: HiSoft, The Old School, Greenfield, Bedford, MK45 5DE. Tel: 0525 718181.

JUST IMAGINE!

The latest version of the professeional rendering package Imagine is now available via Emerald Creative Software. Version 3.0 will retail at £595.00 but if you have version 2 or any other version, you can get the upgrade for only £89.95 inc VAT + £3.50 postage.

Version 3.0, we are told by Emerald, includes many new features, among them are soft edge shadows, and bones, which allows you to create a skeletal structures for easy animation of objects.(The bones aren't real in case you were worried about a visit from the Murder Squad, nor are the dinosaurs.)



V2 now a dinosaur with V3 a low price upgrade.

Contact: Emerald Creative Technology, Rapid House, Wandlebank, London, SW19 1DW. Tel: 081 715 8866.

AFTER SEGA' AMIGA BRING Y



The world's first 32 Bit CD games machine. Amiga Advanced Graphics Chips. 256,000 on screen colours from a palette of over 16 million. CD (Digital) quality audio sound. Upgradable to run Video CD including feature films and music videos.* 32 Bit software for up to half the price of most 16 Bit cartridge games.

S NEW BABY,
OU THE MOTHER.



*Video CD Module optional extra.

Over fifty software titles available before Christmas. Plugs straight into your TV. Can play audio CD's. State-of-the-art technology. Price only £299.99 complete with two great new games. Twice as fast and twice as powerful as any other games machine you can buy. Game over.

™AMIGA CD32
HAVE YOU GOT WHAT IT TAKES?



Overlaying an image and pictured as it fades in.

Video Creator

Now's your chance to produce videos for your favourite music with a little help from perhaps the most innovative CD title ever! Gary Fenton raves on.



The main menu of Video Creator



The editing screen.



Editing an effect: On the left are the list of effects and on the right are the controls for the chosen effect.

on his special project with fellow programmers Seb Lee-Delisle and Keith Smith for over two years finally to produce Video Creator.

Video Creator lets you take many elements such as pictures, animations, and 3D graphics and combine them with a huge array of special mixes and wipes to produce a sequence of imagery which can easily be time to fit the pace of any piece of music from your CD collection. It's one

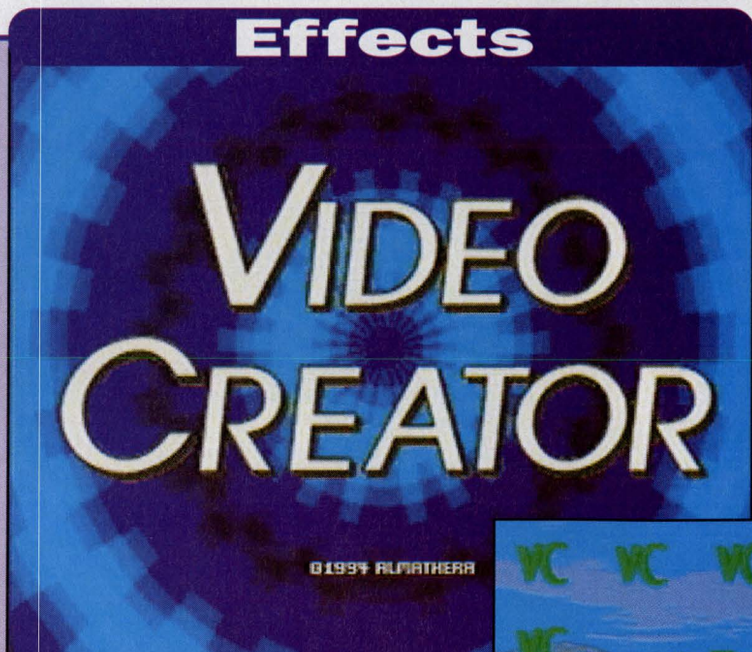
Effects

VC boasts nearly 50 effects including those which push screens up, slide some down, and peel up to reveal new screens. Some effects have extra options which allow you to vary the effect each time it's used.

Here are just a few of my favourite effects:

Overlay: One of the best, this overlays one screen on top of another. For example, it can be used to overlay a 3D object rotating on top of a background picture, or a QuadAnim on top of a 2D vector. The new image can be faded in on top of the current screen and faded out again very smoothly using the timing options.

Mix: This effect uses the new screen to act as a mask for the previous screen. It works best with 2 colour screens over more colourful ones. Some rather clever image operators can be engaged to alter the colours of the screen: And, Or, Xor. These work in real time. Imagine the silhouette of a dancer moving across a background picture as the picture seen through the silhouette changes colour. Totally amazing and extremely well programmed!

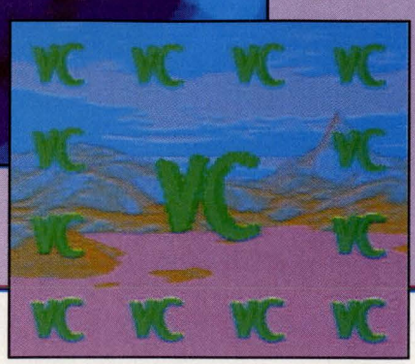


A brilliant product, makes you wish - or glad - you own a CD32!

Cross Fade: Why use a harsh cut from one screen to another when a cross fade goes better with the music? The fade can be as fast or as slow as you want it to be.

Just like Overlay and Mix, VC (well, the Amiga actually) can't display more than 8 bitplanes on the screen at once. In English, this limits these effects so that the number of colours used in the first screen multiplied by the number of colours used in the second screen cannot be greater than 256. Two 16 colour screens can be used and so too can a 128 colour screen and a 2 colour one, but not two 32 colour screens.

Psycho Colour: This manic effect cycles the RGB components of a screen. It looks good with most screens and works in conjunction with other effects too. This means you can overlay or mix a new screen on top of a Psycho Coloured screen. Far out, man!



A QuadAnim on top of a Psycho Coloured background.

Screens

Pictures: There are over 1000 pictures on the VC disk ready for use to use in your own video. They are divided up into many different categories and put into associated directories. For example, you'll find pictures of animals in the animals drawer and pictures of explosions in the disasters drawer. Some pictures use just 2 colours while most use more, up to 128 in some cases.
2D Vectors: Vectors are images created by plotting co-ordinates which, with enough of them, build up a shape which can be animated by changing the various co-ordinates. You don't have to bother understanding how it works because that's irrelevant since VC provides just over 40 ready to use 2D vector animations. Most are weird transforming shapes while others are words or, my favourite, the silhouette of a dancer.
3D Objects: These are also vectors but are three dimensional and can spin on any axis. Like all of the other types VC doesn't actually let you alter or create your own objects, but you can control how fast the object spins on all three of it's axis. There are over 40 objects on the CD varying from a simple 3D box to more complicated shapes.
QuadAnims: These are tiny looping animations which are enlarged 4 times, hence the name QuadAnims. At full size they are very pixelated indeed but some would argue that it gives an artistic mosaic effect. Despite this, they are very flexible animations which can be repeated on the screen to build up a video wall effect and even mirrored which gives rather bizarre results.
Text: Rather limited to just one font in one size and one colour, although mixing text with colourful screens gives much better results.



A 3D object spinning like mad.

of those programs which you only need to put in a little to get out a lot - if you see what I mean.

To get going you just need a regular CD32 and preferably an Amiga mouse too. Although the mouse isn't necessary, it's a lot easier using it to control the on screen pointer than using the joypad. The user interface consists mostly of large buttons which can clearly be seen even if you're using the RF output on the back of your CD32 to connect it to a TV. There's nothing too complicated about using VC, if you can't figure something out for yourself then the excellent manual will certainly be able to put you right.

From the main menu you can go straight in and start creating your own videos or choose from some of the other options available like Random Raves. This is a very powerful feature of VC which automatically creates a unique video to go with whatever piece of music you choose to use. A slider lets you select the pace of the video, from ambient to rave, and once it's ready just sit back and watch or stand up and dance!

Time Line

Jumping into the VC editor you'll find a screen made up of columns and rows with some buttons laid out along the bottom of the screen. If you've ever used Scala then you'll find VC's editor quite similar in design. The top part of the screen displays a time line which is a visual representation of where events take place during the video. The time line starts at the beginning of the track (0 seconds) and goes right up to then end of the track. Events are marked by a colour square with a unique event number which corresponds to the editor below.

The whole point of VC is that the video goes with the music. In practice screens should change on the beat and this can be achieved with a single mouse click. The Synchronise section of the editor displays a close up of the time line and plays the music track from the time of the previous event. When you want the event to occur (perhaps on a drum beat or a cymbal crash) just click the mouse button and the event will be placed in the time line at the exact point the button was clicked. Unless you completely lack rhythm, the results of a well timed video can dramatically improve its impact.



A 2D vector dancer spins across the screen - awsome!

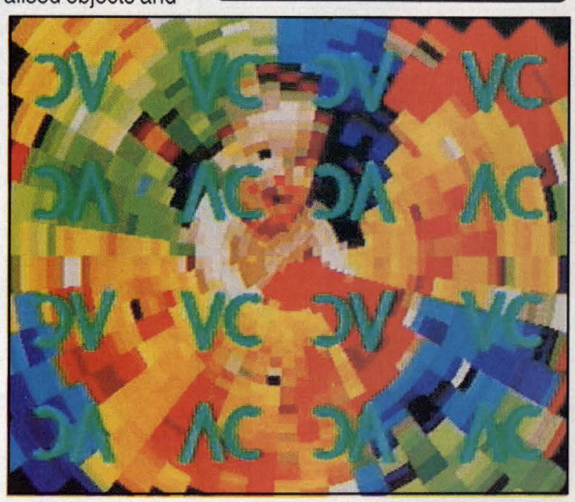
Conclusion

Video Creator is a very special program because it takes the CD32 into a new realm and a few nightclubs too I imagine! There are only a few things more satisfying than watching a completed video that you've done yourself. I admit it is disappointing that you can't design your own 2D and 3D vectors, and the text facilities are limited, but we must bear in mind the restrictions of the hardware (2Mb RAM and no way of storing more than 1K of information).

After a few weeks of using VC at home I can see the novelty factor wearing off mainly because of the inability to create your own personalised objects and animations - your videos will look much the same style as anyone else's. However, if you have an expanded CD32 or the serial adaptor (call Almathera) you can create IFF graphics on another Amiga computer and link it to the CD32 so pictures you've created yourself can be used. Almathera also promises an expansion disc for VC containing even more images, animations and objects.

Personally I'd like to see VC appear on floppy disk for the A1200 too so CD32-less people can enjoy Almathera's wonderful program and create their own vectors and pictures and store them. Finally, VC should be used to promote CD32 because it's such a wicked program! So take a break from games and check out this outstanding CD32 product now! ***AUI***

Video Creator is a very special program because it takes the CD32 into a new realm and a few nightclubs too I imagine!



A QuadAnim on top of just one of the many strange pictures supplied.

RATINGS

Video Creator

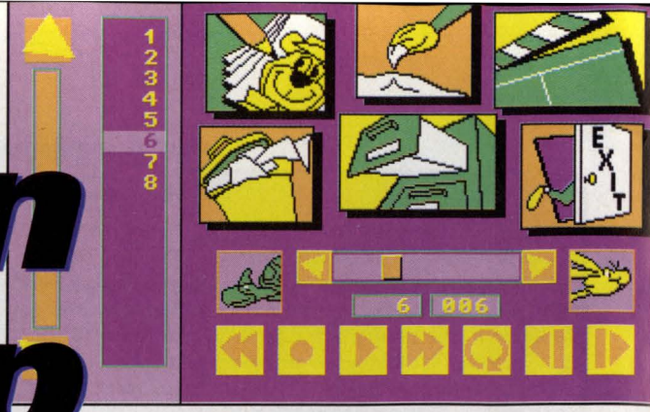
FEATURES	85%
PERFORMANCE	92%
DOCUMENTATION	90%
VALUE	88%
INNOVATION	98%

Overall Rating 92%

INFO

Price: £39.99
Contact: Almathera
Southerton House
Boundary Business Court
92-94 Church Road
Mitcham, Surrey CR4 3TD
Tel: 081 687 0040

Animation Workshop



The main control screen.

Will budding Amiga animators be pleased to learn of a new cartoon animation package bearing the name of the legendary Hanna Barbera? Maybe.. says Gary Fenton.

I recently visited a London based animation studio which produces all of its cartoons using computers (although not Amigas!). The backgrounds and characters were drawn straight into the computer using an onion skin technique, just like DPaint.

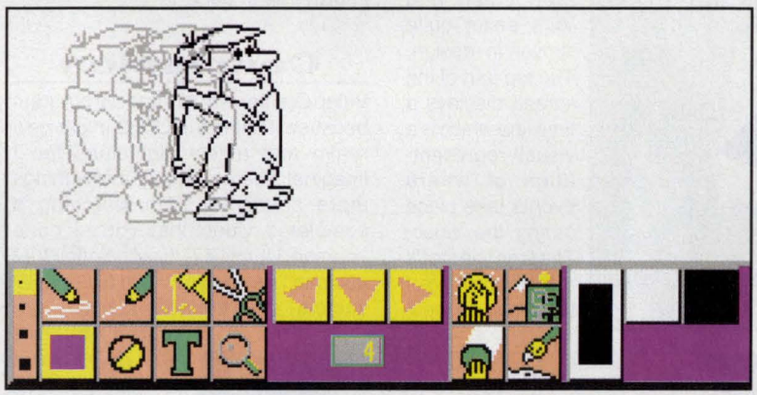
What amazed me about the latest in cartoon software was that a lot of the movement is taken care of by the computer. You just say where you want an object to move to and the computer creates all the frames for you. Even scrolling backgrounds can easily be created. When The Hanna Barbera Animation Workshop appeared for review I was only too pleased to find out what Hanna Barbera could provide to help create better animations.

The package includes two disks, a friendly instruction book, an 18 page scrapbook of Hanna Barbara characters, and a 30 minute "How to Draw The Flintstones" video tape. Only five minutes are devoted to drawing Fred and the rest of the tape contains a whole Flintstones episode.

The actual program can run straight from the disks or be installed onto a hard drive. It runs on all Amigas with Workbench 1.2 or later with at least 1mb RAM. A picture password protection system is employed in the software so you have grudgingly to refer to the manual every time you load it up.

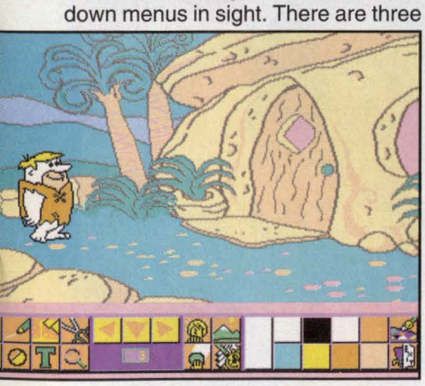
Controls

The interface is very colourful and cartoony in style. The main control screen shows large icons with no pull down menus in sight. There are three main sections to this screen: the exposure list (shows running order of frames), the animation control panel (play, loop, rewind, speed etc), and the main control area. This is made up of quit, file, clear, digitise, paint, and animate icons. The Digitise option lets you grab images from tape or camera using Rombo's Vidi hardware. Using this, hand drawn cartoons on paper can be pulled in, or even stop frame animation can be exploited.



This is the Animate mode which uses an onion skin effect to show previous frames.

One tutorial in the manual suggests using the supplied clip art to help get started. For example, there are eight frames of Barney Rubble supplied on the disk (among many bits of clip art) which can be combined to animate Barney walking. The idea is to cut out one frame from the sequence and place it down in the scene, go back and cut out the next frame and place that down... Only after eight tedious frames I began to wonder if DPaint's animbrush feature would be an easier method.



Barney's on his way to visit Fred.

Modes

Enough of this clip art, it's time I created my own cartoon characters. There are three main drawing modes you should first know about. The "Foreground Paint" mode gives you basic drawing tools (and I mean basic) and 8 colours to work from. "Background Paint" mode gives you a further 8 colours to draw a static background. The final mode, "Animate", gives you just a pencil sketch of your foreground animation and optionally allows you to superimpose it over the background picture. Why I can't draw the animation in full colour over the background picture, I don't know.

I believe the idea is to draw the outlines of your characters in the Animate mode and then go into the Foreground Paint mode and colour in the frames.

All drawing modes give you a low resolution screen with 8 colours to work with. Surely there must be a way to use a higher resolution with more colours, even overscan would be handy? Alas, no. The masters of cartoonography have decided that sub TV resolutions are good enough to create cartoons with and you don't need more than 16 colours in total. I hate to argue with the giants of cartoon comedy but I think they're wrong. How would the world react if Flintstone's cartoons suddenly appeared with large black borders around the screen cutting off 10% of the action, not to mention jaggied lines used to make up the drawings? Or maybe I'm wrong and this is just a program for kids and no more?

Anyway, the drawing tools featured in all modes are made up of freehand draw, line draw, rectangle, ellipse, fill, text, magnify, cut/paste, undo, and clear. The text tool is limited - only the default font can be used in just one size! The undo tool depicts Shaggy holding his hand up as if to say "oh no!". Simple icons like this make it a very user friendly package.

Three other icons in Foreground and Animate modes give control over frames; next, previous, and add new frame. When you advance a frame the previous two frames show up as a faint image allowing you to use them as a reference. This is the onion skin effect I was referring to earlier. There are some keyboard shortcuts to make things easier, but none of them corresponds to the unofficial DPaint standard which most people are accustomed.

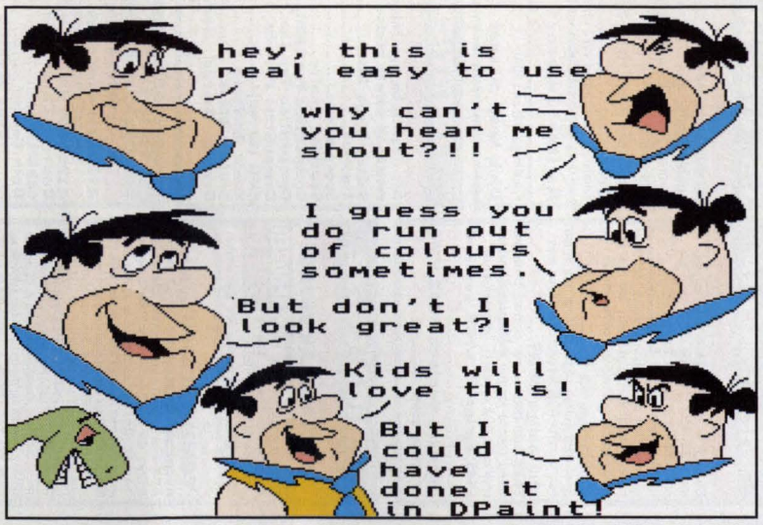
Sequences

Now, let's create a nice background in DPaint and perhaps some nifty animation sequences and then load them into Hanna Barbera's Workshop. (I spent an hour drawing cute little 'toons in DPaint.)

Okay, now to load them into the Workshop. What's this then? The Workshop doesn't read standard



"Looks like we've run out of colours, right Scoob?"

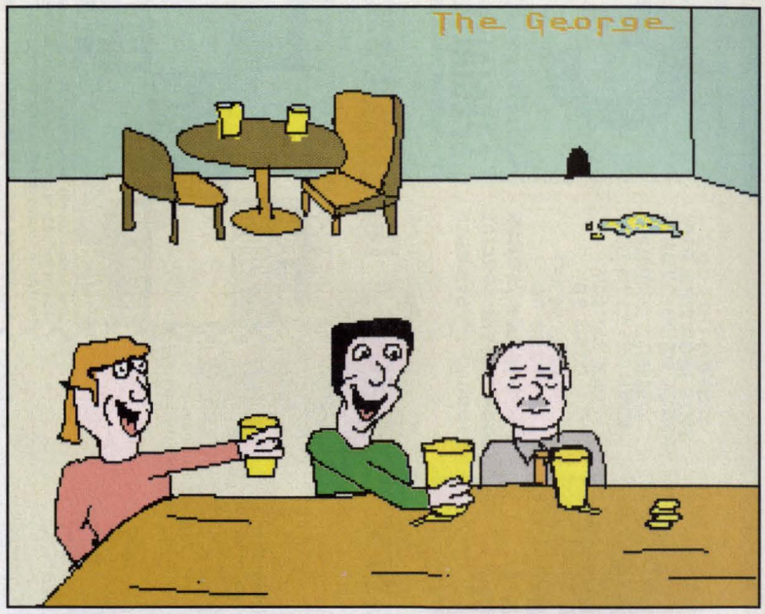


Excellent clip art.

Amiga IFF picture files? Surely some mistake? I can't identify the file format that all this Hanna Barbera clip art is supplied in - DPaint can't read it, and nor can ADPro or ImageFX. Producing any art package for the Amiga which doesn't read or write IFF files is totally unforgivable. A quick call to Empire reveals that Hanna Barbera instructed the programmers not to use the IFF standard. Them looney tunes!

runtime player isn't included so you can't make demo disks which play the animation while playing a sound file in the background via a PD sound player. This sucks - cartoons without sound.

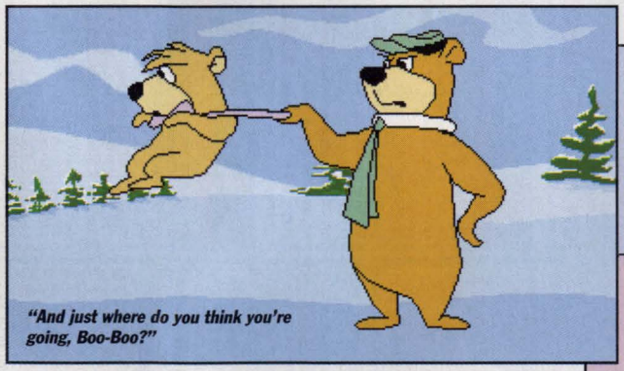
The only method of adding sound is to record the animation onto video tape and play the sound from a tape recorder or dub it on later. However, to be fair, Empire would like to point out that a sound module may be on the cards for a future upgrade.



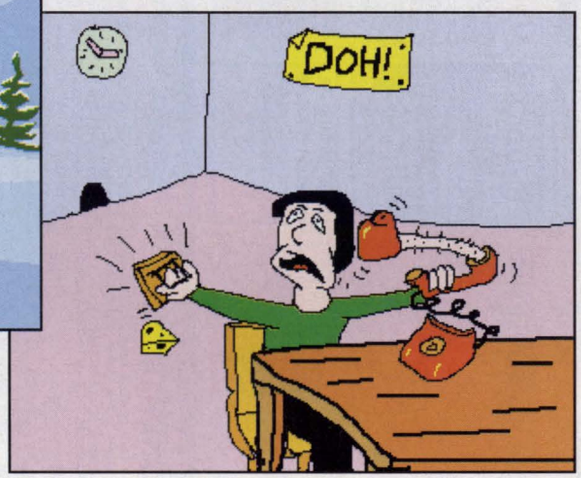
Dave will have a pint and Gids will have something bright yellow, please.

my A4000/040 performs a "dir" command times slower while running the Animation Workshop. Empire didn't understand why I should want to multitask - that's because the guy I spoke to uses a PC!

Everything about this program points to a port over from the PC; yet



"And just where do you think you're going, Boo-Boo?"



I knew our Gideon would make a great cartoon character! He-he!

Let's pretend that I prefer this program to DPaint and I've just spent the best part of a day creating a cartoon showing the Ed buying us a round of drinks down the local. It animates smoothly, could have done with some extra colours in the background, but I'm pleased with it. Just one thing is missing which must be added in order to complete the cartoon, and that's sound. There's no sound. Pardon? Am I hearing this right? Yes sir, after sweating away at an animation lasting for just 10 seconds (that's 100 frames at only 10 frames per second) I'm left to watch my cartoon in silence. Try watching a cartoon with the sound switched off and you'll see how much of the impact is lost.

I can always use a program like Scala, MediaPoint, Magic Lantern, or a PD program to add sound. Ah, yes, there IS a problem. If you remember, Hanna Barbera's Workshop doesn't save files in the standard IFF format so no other program can play back the animation. Even a

Slower

I shouldn't really condemn this program just because it doesn't support higher resolutions, more colours, the IFF standard and sound. Or should I? But it also makes my computer run 10 times slower. WHAT? That's right, don't bother multitasking because this

What's this then? The Workshop doesn't read standard Amiga IFF picture files?

program turns a sports car into a steam roller. Other programs running at the same time on my A1200 lose all reflexes and take ages to respond, and another file format to support, the low resolution animation capacity without overscan, no support for sound (too many standards on the PC to support?), and no tolerance to multitask correctly. Yup, that sound's just like a PC to me, right down to the cranky multitasking.

This is a great little animation program - if you've got a PC that is. It just appears to be an incomplete program for the superior Amiga. Whatever can be accomplished in this package can be done better and faster in DPaint III or IV. More features, more colours, more creativity and compatibility.

I can only recommend this package to kids who find DPaint too complicated and couldn't give a hoot about IFF and sound support. The



Ideal for kids who just want to have fun.

best thing about it is its simplicity which means you can create cartoons within minutes after loading it for the first time. That and the Rombo digitiser support is its only advantage over DPaint.

I'm surprised that Hanna Barbera have come up with this limited product which hardly reflects the standards which are achieved by their cartoons, spanning the best half of this century. Well, at least I got some pleasure from the bundled Flintstones video! ***AUI***

RATINGS

Animation Workshop

FEATURES	50%
EASE OF USE	90%
PERFORMANCE	60%
DOCUMENTATION	90%
VALUE FOR MONEY	60%

Overall Rating 70%

INFO

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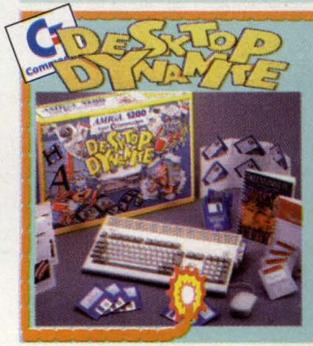
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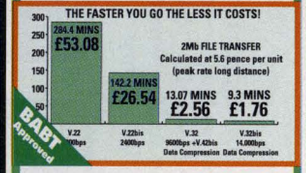
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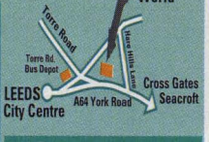
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All the FAX?

David Taylor turns his terminal into a personal fax machine with GP Fax.

The information explosion that we're all on the brink of comes in many shapes, all of which can be reduced to zeroes and ones. A special aspect nowadays which a growing number of the computer community has become used to is modems - hence the expansion of Internet, as ***AUI*** reported last issue.

Sometimes, however, we still go back to the age old manuscript style and find we need to send someone a message with a piece of paper to hold.

A few years ago, it would have taken quite a bit to convince me I'd ever need a personal facsimile machine. What could I possibly do with one? Today, it is pretty darn handy.

Since I have a computer and a modem, it seems stupid that I'd have to get a fax machine as well. I don't.

GP Fax is a program that allows me to convert text files and IFF images to faxes and send them via my modem to an ordinary fax machine. Of course, it allows the opposite too, in effect supplying me with a fully fledged fax. With a scanner attached, even hard copy can be transmitted by converting it to an image.

Environment

Installing the program is a doddle and the well written handbook sorts out any problems you might encounter. All that's needed is a little knowledge of computers and some common sense.

The front end of the program makes everything simple. You can set up a phone book, leave the modem on auto-answer, convert text to fax and view any sent to you.

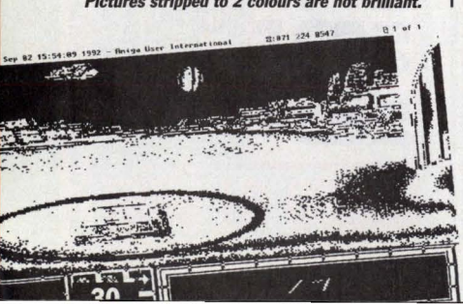
It is possible to schedule your computer to send out faxes to destinations and make your life easier.

Once the setup is ready and you want to get going (which will be a matter of min-utes from opening the package), simply find your text. Simple ASCII is all that's needed. Presuming that you've set up a nice header for your fax, like ***AUI***, then simply convert it and send it. Easy.

Pictures

Pictures are not as simple as text. It is only possible to send or receive two colour images (i.e. black and white). If the IFF consists of more than this, then GP Fax will strip the image for you. Since there is no greyscale, though, the results are a tad disappointing.

Diagrams are fine, but don't expect to send complex photographs and get anyone who can work out what the picture is.



Pictures stripped to 2 colours are not brilliant.



Incoming faxes can be read within the program or exported.

The real downer, I suppose, is that fax machines are not as versatile as computers. Faxes lose quality that sending the file from computer to computer never would.

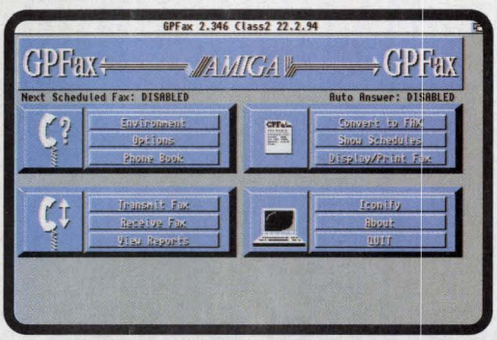
Here I'll make one point that may seem obvious, but if you are sending it to someone who may be using a similar program, check! I once sent a fax to a guy who was using the same program to receive it on his terminal. It's pointless. You both waste time converting and the quality is much better if you just send the information as a file via the modem. GP Fax is for sending to fax machines. Obvious, but it can happen.

A nice extra, that our fax machine here does for you, is also included, a report card. Having a look at this will tell you the status of your faxes, which were sent and received and whether they went OK or not.

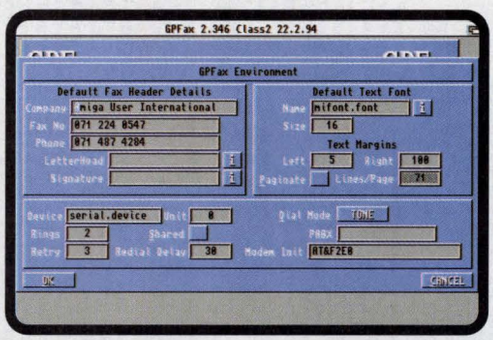
The outcome is indistinguishable from a normal fax.

Conclusion

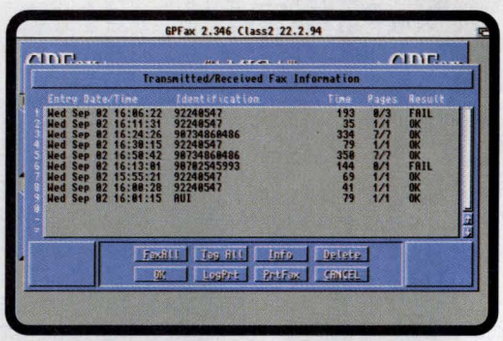
Well, if you want to send faxes and turn your modem into something else, then this does it. I re-iterate the problem with IFFs - they do not come out too well. If, however, you need to transmit documents and reckon there's no need to fork out for a new machine, then GP Fax is a useful solution. ***AUI***



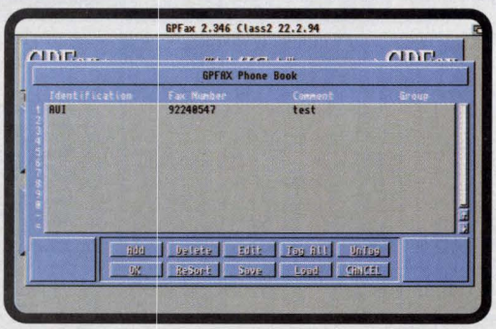
The easy to use, mouse driven front end.



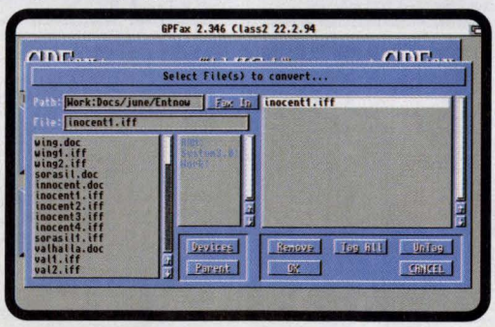
Quickly set the environment and you're ready to go.



The record of transmissions is very useful.



Customise a phone book and everything's even faster.



Converting the image is not a complicated procedure.

RATINGS

GP Fax

FEATURES	80%
EASE OF USE	94%
SPEED	80%
PERFORMANCE	80%
DOCUMENTATION	92%
VALUE FOR MONEY	85%

Overall Rating 83%

INFO

Price: £49.99
Contact: First Computer Centre
Unit 3, Armley Park Court
Off Cecil Street, Stanningley Road
Leeds LS12 2AE
Tel: 0532 319444

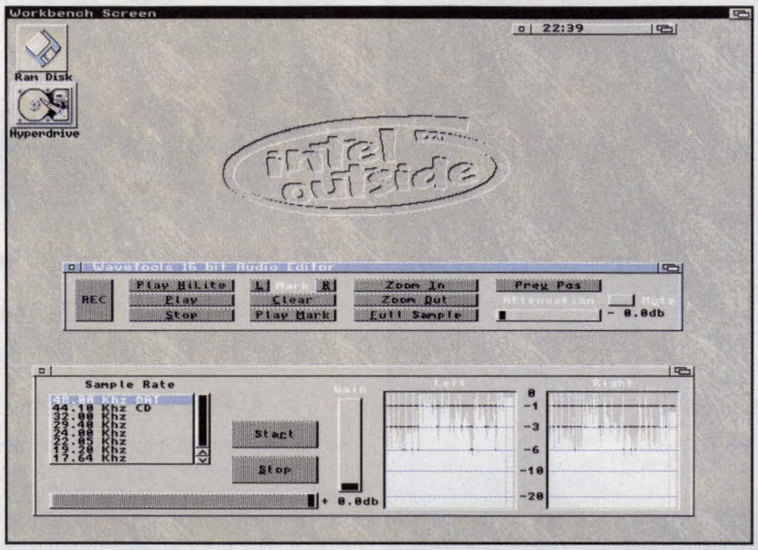
WaveTools

Stephen Broodbent test drives a new sampler that is moving the Amiga to 16 bit sound.

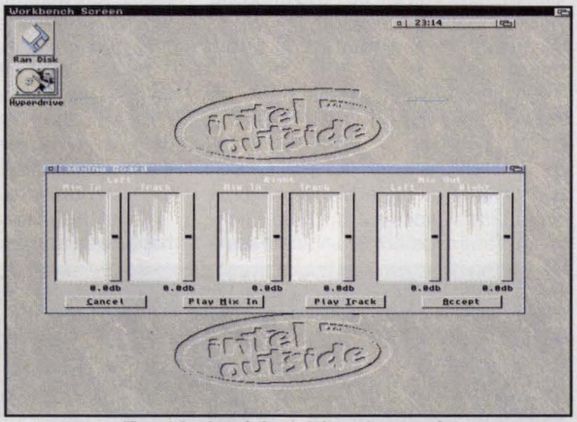
The Amiga has never been in the position of needing a soundcard to improve its sound capabilities. In these heady days of multimedia however, 8 bit sound acompanying 24 bit graphics and digitised video does seem a little out of place. Wavetools is another in a growing line of 16 bit sound samplers which have set out to correct this. Based on a half length Zorro II card and with a minimum of a 68030 processor running at 25Mhz recommended, its use is limited to the A3/4000 range or a turbo charged A2000. A hard drive is also an essential here, as the card stores the sampled data directly to disk, so eliminating the need for vast amounts of memory.

The speed of the hard drive shouldn't be a problem, at the highest sample rate (48Khz), Wavetools transfers the data at a rate of 192 KBytes per second, although a drive speed of at least 500 KBytes/sec is recommended, allowing for the more complex editing operations.

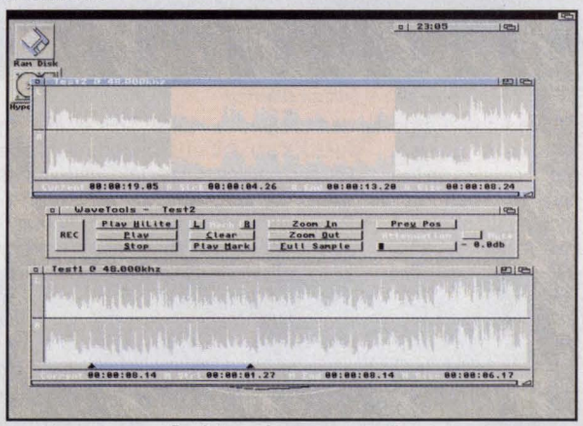
Once installed, the card connects to your audio system by way of standard line input/output connectors.



The Audio Editor on Workbench.



The mixing board showing the various samples.

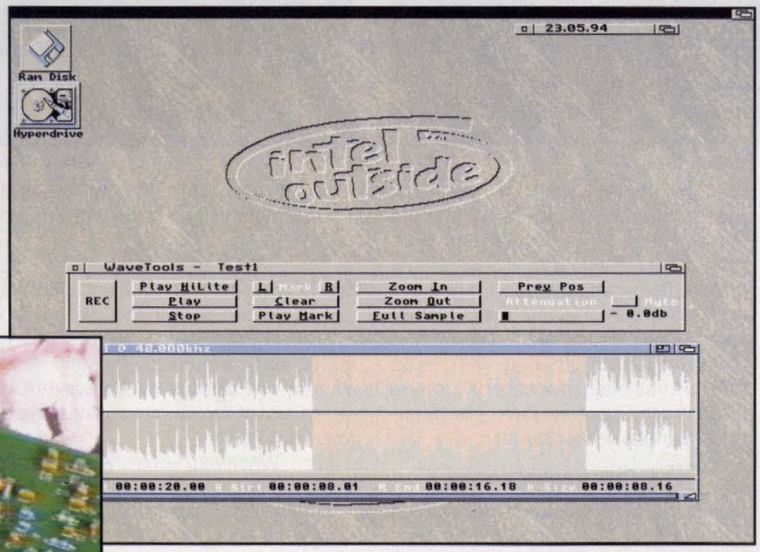


Ready to remix our crazy sample.

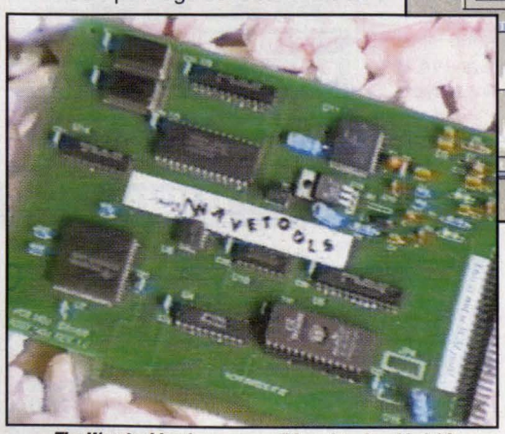
Software

A very important factor for any 16 bit sampler is its software. Because the Amiga uses 8 bit audio, any sample editor you might already own can only load standard 8 bit samples. What's needed is a dedicated software package that takes care of any editing you might want of the recorded sample.

The software included in the Wavetools package consists of the all important editor, a playback module and a small program that converts samples between the Wavetools AIFF16 stereo format and the Sunrize AIFF16 mono file format.



The waveform displayed by Wavetool's software.



The Wavetool hardware, a small board to do a big job?

From the editor, the audio source can be monitored and the sample rate set, which starts at 17.64khz and goes up to 48khz (DAT). The duration of the recording can also be set with a slider gadget, and once the time selected is reached, the editor window opens up with the sample already loaded.

The editing functions available to the user are rather basic and this rather lets the whole package down. Although the usual cut and paste operations are supported, the only other effects available are amplitude control and mixing.

Considering the user base the card is aimed at, and we are talking about the semi-professional musician/multimedia user here, this seems like a serious oversight on behalf of the makers, Digital Audio Designs. It's a shame too because the quality of the samples is excellent and when recording from a clean source such as CD at the sample rate for CD's, which is 44.1khz, there is no noticeable difference whatsoever.

RIX

There is one light on the horizon however, by the time you are reading this, Digital Audio Designs should have released their RTX (Real Time eXtension) module, which plugs into the Wavetools card thanks to a connector port at the rear of the card. The module will set you back another £300 or so, but does offer full SMPTE capabilities and its own DSP chip. Add to this an updated software packet and the card could become a serious threat to the elitist Sunrize board. As it stands at the moment, the package needs far better software support to warrant any serious consideration. ***AUI***

RATINGS

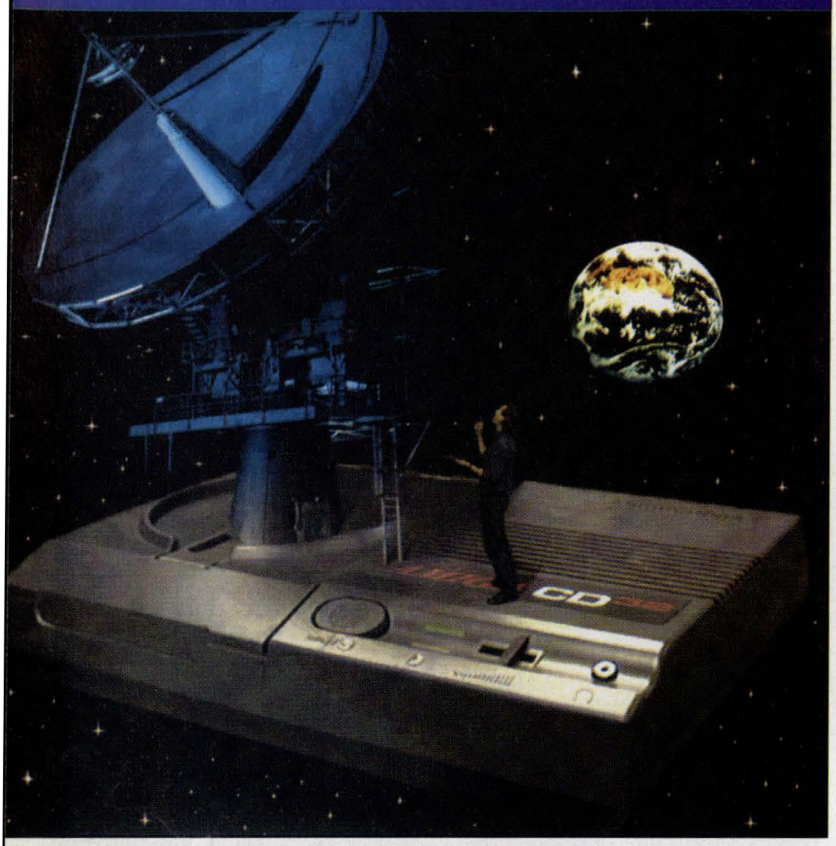
WaveTools

FEATURES	69%
EASE OF USE	85%
DOCUMENTATION	80%
PERFORMANCE	85%
VALUE FOR MONEY	70%

Overall Rating 75%

INFO

Price: £300.00
Contact: Blittersoft
40 Colley Hill, Bladwell
Milton Keynes
Bucks. MK13 9DB
Tel: 0908 220196



The complete picture (without dithering)

PHOTO Realism

Gideon Overhead gets some life-like colour reproduction with the Primera printer's photo realistic upgrade.

Having reviewed the Fargo Primera, I was, of course, eager to get my hands on the Photo Upgrade. When it arrived I had difficulty accepting this as an upgrade. What we received was a Dye Sublimation ribbon, a disk with the Amiga photo driver on it, a plastic holder for the ribbon, and some paper. Once the ribbon and the paper had run out, all you were left with was the printer driver and a cheap plastic holder, so boo hoo, where is my upgrade gone? We will then have to buy the refill pack.

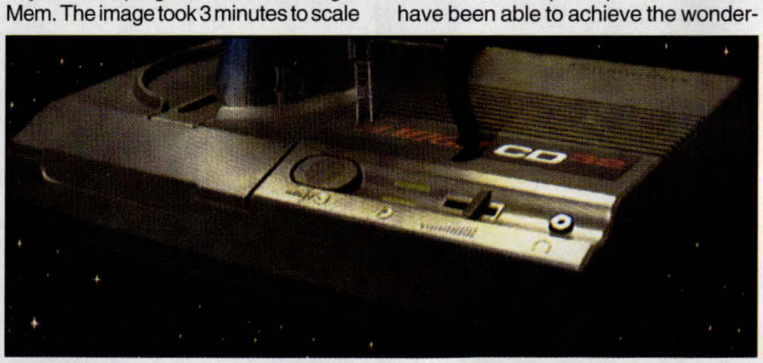
The photo realistic printer driver I received was version 2.2 and this only allows you to print out using 4096 colours. This may sound completely illogical, 24 bit is what you need, I hear you cry. This may be true but the results are still, somewhat surprisingly, very good.

To create the illusion of more colours you need to dither the image. Unfortunately the current printer driver makes any sort of dithering less than satisfactory. The manual does say not to use any dithering. So what do you do? Well, if you have the image processing package Image FX you are saved. Steve Koren, a Primera user, has created a Hook. This is like an AREXX script that is loaded into Image FX and carries out certain instructions within the program.

The Hook will reduce your image to the colour space supported by the Fargo (4096). It also dithers it in a much more effective fashion than the current driver. The results are probably about ten levels up in quality. Just look at the scans included. They are both close ups of a composite picture created by Gary Fenton. The picture on the left has no dithering. The one on the right has been processed by Image FX using the special Hook. The difference is instantly apparent.



Close up with no dithering Ugh!



Close up with dithering Mmmm!

Processing

If you want a top notch super high quality print out, you need to process the image slightly regardless of whether you are using the hook. The first thing to do is to rotate the image 90∞. This is because your monitor is wider than it is tall, and the printer output is taller than it is wide. This is only for images of this ratio. You then need to do gamma correction to increase the brightness. This is because the printer seems to reduce the image intensity. Also the blue often needs to be enhanced slightly as the printer seems week with this particular colour.

The printing paper is quite expensive so if you are going to print one out you want it to cover the whole of the page. To generate a 8 " X 10 " image you must scale it to 1614 X 1990 pixels. This is done by using ImageFx or Adpro. This will take up a LOT of memory.

I chose ImageFX because it allows the use of Virtual Memory without any outside programs such as Giga-Mem. The image took 3 minutes to scale on my 25Mz A3000 and about 7 megs of normal memory and 6 megs of virtual.

Action

It is almost time to press the magic print button! Before you do this you will need to dither your picture with the hack if you have it. This hack is still better than the latest version of Primera's own driver (V4.1) which has however improved since my old version (V2.2)

When you click on the print button the computer then has to turn the picture information into printer talk. This is intercepted by the driver and if you haven't enough free ram, the information is written to hard disk. This also takes up a considerable amount of memory.

The printer then chugs into action. About 15 minutes later you should be holding a beautiful photo realistic picture in your hands. The quality of the final print out will always depend on the quality of your source image.

Value for money depends on what you are using it for. If you are just printing out your rendered images for your friends you could find this rather expensive. If you are using it for your business perhaps to show clients your work, it is definitely worth it as it would be very expensive to get a similar result printed professionally. With the growing popularity of colour photocopying we are used to easily accessible colour but such reproduction is far innferioror to what the Primera can produce which is almost indistinguisable from A4 size colour prints.

Thanks must go to Steve Koren. Without his helpful tips we wouldn't have been able to achieve the wonderful results and if you already have the upgrade, I hope they'll help you too. ***AUI***

RATINGS

Photo Realism

PERFORMANCE	90%
EASE OF USE	75%
DOCUMENTATION	75%
VALUE FOR MONEY	80%

Overall Rating 80%

INFO

Contact: Power Computing:
44a/b Stanley Street
Bedford MK41 7RW
Tel: 0234 273000

Price:
Photo Realistic Upgrade Kit: £199.00
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Dir Work 2

David Taylor test drives a new file manager package to see if it matches up to the tough opposition.

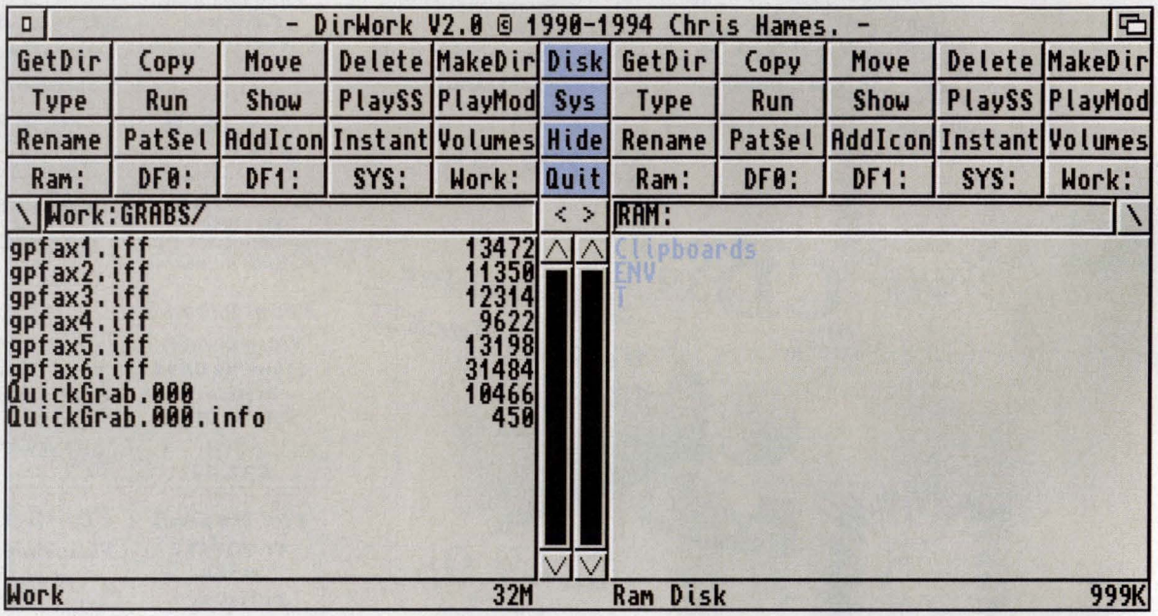
When you first come across a directory utility or file manager, it can seem a little daunting - just what are all those buttons for? Surely you'd never need anything like that? Then, before you know it, if someone were to threaten to take your new software away, you'd fight to the death for it. A utility of this kind is simply indispensable for any serious user.

On the Amiga, Directory Opus is regarded by most as the unrivalled champion of these applications. Dir Work 2 certainly has its work cut out to take out that sort of competition.

This program has been created to make the life of hard drive users somewhat easier and this begins with an easy installation procedure. Dir Work 2 uses the standard installer program and caused no problem at all.

Aesthetics

The first thing you notice when you load it up is its appearance. It is quite drab, a carbuncle amongst programs. OK, it's very user definable and you can make it look much better, but the default settings should have been a bit more lively. It's almost essential to change the fonts and colours, otherwise you may fall asleep trying to work. It does perhaps err too much on the definable side though, since every button and screen can be defined separately. I just wanted to change the default font for the whole thing. So it may take quite a while to get it set up in the way that pleases you. However, that does mean you can be individual about it all.



As it stands, with everything you'd expect.

Strengths

Once the disappointing first impressions fade, Dir Work starts to show its strengths.

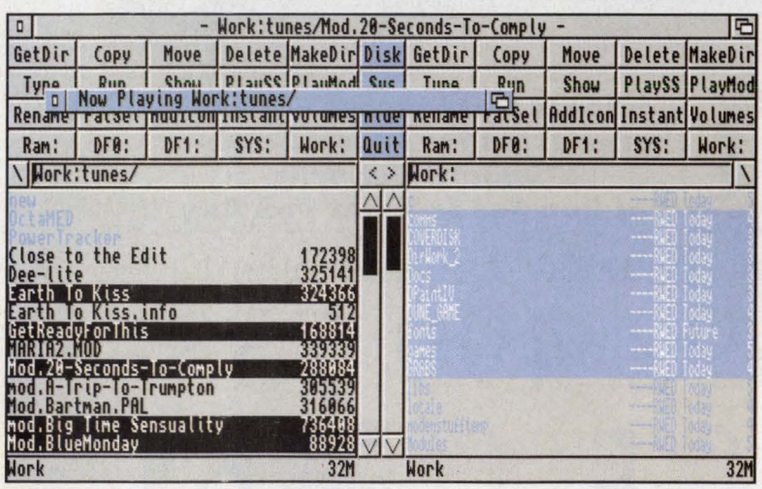
As with its competition, you can copy, rename, move and delete files or directories. Yes, you can do this on Workbench, but not with such ease or clarity.

The same is true of the easy to use disk formatter, which allows you to copy entire disks or to format, fast format and install disks in either old or FFS format.

Creating directories and arranging files is simple. Highlight the ones you want and they can be moved, copied or deleted en masse. This is so much better than fiddling around on Workbench, believe me.

In addition, it's possible to view iff pictures, read text and play sound modules. This is a very useful, no, an essential, feature for such utilities to have, allowing a quick assessment of a file without having to boot up a separate program. A quick double click on a file and you know what it is, instead of having to swap applications.

You can add icons, customise buttons for actions, assign files, change the protection of files, etc. All the stuff you'd want from an application like this, but also everything that you'd expect.



Play a tune whilst you get on with sorting out the hard drive.

Setup

One thing that seems strange is the way that the whole setup is arranged. As you'd expect the screen is split into two, with one directory displayed in each half. The options, such as copy, are then duplicated on both sides so you can decide which side copies to the other from the button, instead of from the active window as with DOpus. To be honest, this just seems like a waste of space that could have been better employed providing more options.

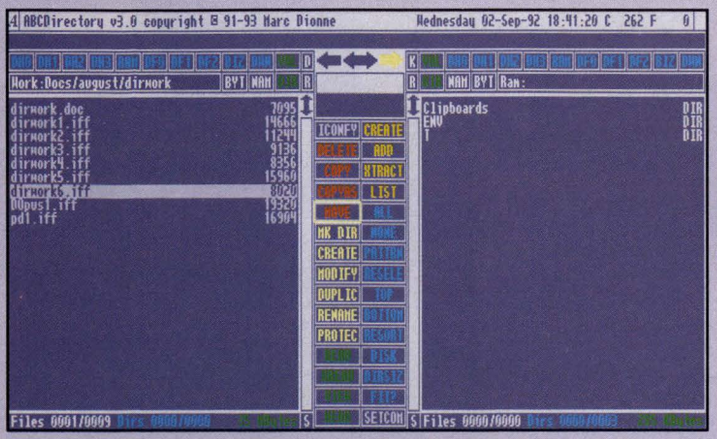
It's almost essential to change the fonts and colours, otherwise you may fall asleep trying to work.

If you're interested in a directory utility, it is the extras, the frills, that will tip the balance. After all, a file manager that couldn't copy a file would be like a word processor without a cut and paste option. Dir Work 2 has a couple of great features. The best by far is the system information analyser, which can be selected from the menu. It will run a diagnostic of the system and tell you anything you need to know.

There is also a calculator, which could be useful, although I'm always slightly sceptical of that, since I guess

On the Cheap

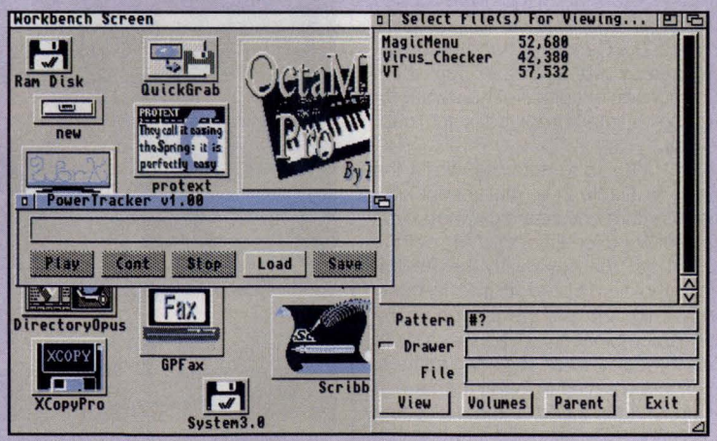
If you're on a tight budget or don't need to use a utility like this every second, then look at some of the PD programs, like ABCDir on this month's SuperDisk (a great looking and easy to use directory manager).



The Public Domain option should attract those short of a bit of cash. Generous AUI has supplied this brilliant program on the Superdisk.

The extras, such as the system information, can be obtained by other PD programs like Sysinfo. The Public Domain contains masses of programs that will fill the gaps. With that and, say, GuiArc (also on this month's SuperDisk), a viewer and a module player (for the types that programs like ABCDir won't recognise), you have all the power of a professional utility.

For viewers, Viewtek is not the only picture viewer, but it is considered one of the best by the *AUI* team (and has been featured on an earlier SuperDisk). As for module players, they abound and the cream can be found on previous SuperDisks.



There may be other solutions for those who don't need full professional performance.

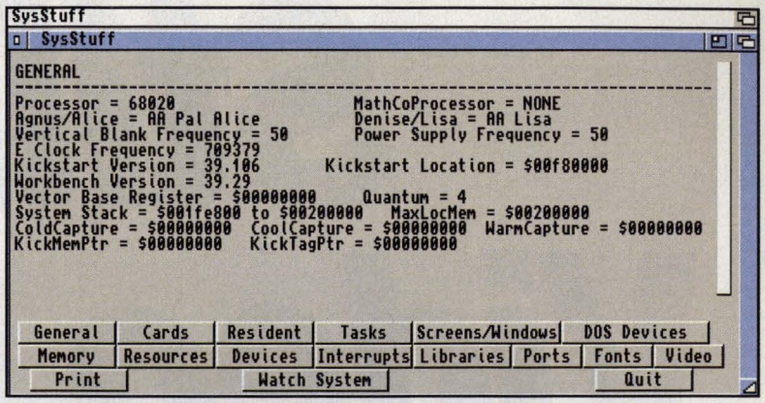
Of course it means you won't have everything encapsulated in one tidy application, but the cost, however, may outweigh the cumbersome swapping for those who don't need it professionally.

A quick double click on a file and you know what it is, instead of having to swap applications.

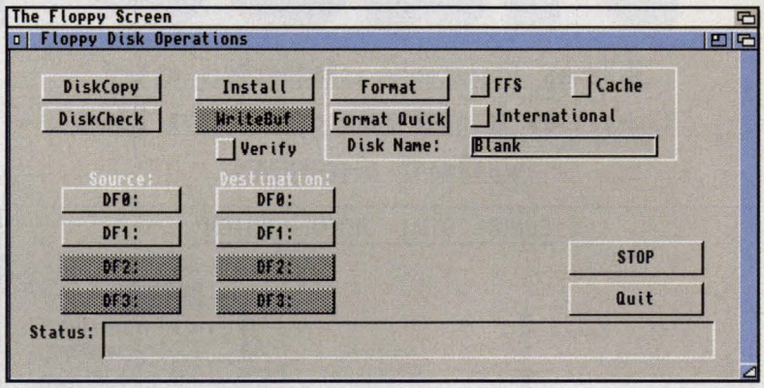
that people are more likely to just pick up their hand held for any calculations. It does, however, have a recorder of actions, which is good because it allows you to trace through the maths.

Multitasking

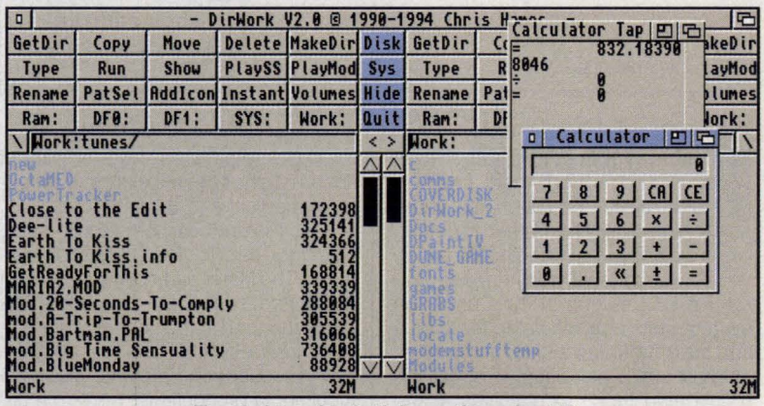
The best aspect of Dir Work 2 is the fact that it multitasks. DOpus does this to an extent, in that you could play a module whilst copying for instance. Dir Work 2 allows you to do it all - it is possible to format drives, whilst doing anything else. The other real strength is in the program's size. Where DOpus takes up nearly half a Meg of RAM, Dir Work steals a mere 150K. This leaves a lot more freedom for multitasking on a bare Amiga.



A quick rundown of the system supplied by Dir Work 2.



A simple, but effective format option.



The calculator exists, but is it more than a gimmick?

Conclusion

Overall, Dir Work 2 isn't a bad directory utility, but it doesn't offer enough. Directory Opus is far more versatile and powerful, although this is offset by the program's size.

If you do want the genuine article in one package, then DOpus 4 is cheaper. Maybe the DOpus people could include some of Dir Work's ideas and make their program even better. If not, perhaps a third version of Dir Work would make up the shortfall, but it would have a long way to go... ***AUI***

RATINGS

Dir Work 2

FEATURES	63%
SPEED	70%
PERFORMANCE	64%
DOCUMENTATION	80%
VALUE FOR MONEY	65%

Overall Rating 66%

INFO

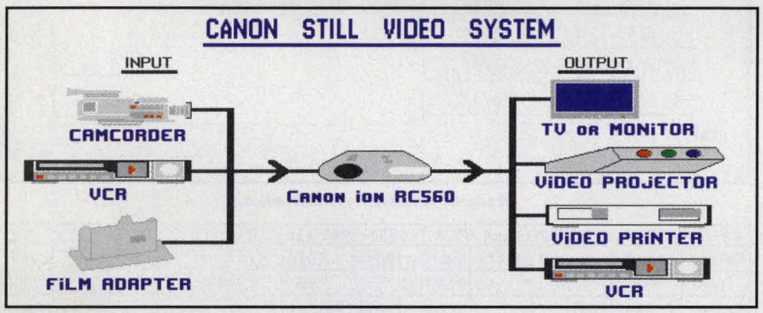
Price: £69.95
Contact: Meridian Software Distribution
East House,
East Road Trading Estate
East Road, London W19 1AH
Tel: 081 543 3500

Still Video Pro



The Ion camera, the slide adaptor, the wireless controller and, yes, floppy disk

Alan Puzey checks out Canon's advances on the video scene.



A schematic showing the still video system.

I need to digitize slides rather than prints and import them into the Amiga, but I hadn't been able to get the high quality I was used to getting when digitizing from videotape or prints.

A film (slide copying) adaptor, the FA-C56, is one of the Canon Ion system units now available for this. It can copy mounted slides, unmounted strips of slides and strips of negatives (converting these to positives at the press of a button). The results are excellent as you can judge by the JPEGed pictures on this page.

As the schematic of the Canon Still Video System shows - in addition to using this film adaptor and, of course, taking 'normal' pictures, the Ion can input pictures directly from a camcorder or video recorder, making it extremely versatile.

There is also a 'macro adaptor' for close-up pictures - with or without flash. This has proved extremely popular in medical and dentistry circles.

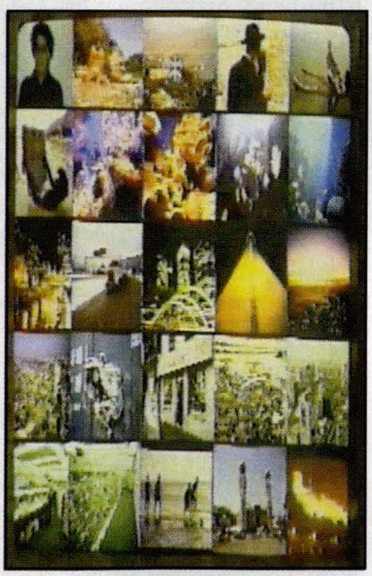
Pictures can be viewed using TVs, monitors or video projection systems. The last is particularly effective if a scripted sequence of images has been captured in the correct order (the Ion camera can be used as both the main producer and provider of simple multimedia productions) making a finished presentation ready for instant viewing. The Ion system is already being used in this way at medical centres in London. The Ion can cope with the disparate techniques (such as macro or microscope work), required to obtain images in various hospital departments such as the X-ray, endoscopic, radiology and pathology labs.

Another item is the 'wireless controller' (or 'remote control' as we'd call it). With about forty buttons, this controller obviously mimics all the controls on the camera and adds many functions of its own. Images can be viewed singly, four at a time or twenty five at a time ("Multi-Image"). When viewing the twenty five image screen, any one image may be selected and blown up to full size. 'Interval Playback' allows images to be played back at set intervals, which provides the basic, stand-alone presentation system. The contents of a floppy disk may also be rearranged in order to obtain the required playing order for such a presentation. The controller also allows images to be recorded from external input devices such as camcorders, VCRs and television and images to be dubbed from one floppy to another.

The Canon Ion has already been used by ***AUI*** and other publishers as a convenient piece of hardware for producing images for desk top publishing.

It's sad to note that whilst the Ion is available in a 'multimedia kit' - including the necessary digitizing boards and software for either the Mac or PC - this is not the case with the Amiga. Nevertheless, I hooked it up to my trusty 'Vidi Amiga 24' and this proved an excellent combination. There was a slight loss in quality when digitizing images, even when saved in 24 bit format and using S-Video leads, and a noticeable pixellation effect was evident where the picture contained diagonal lines of high contrast.

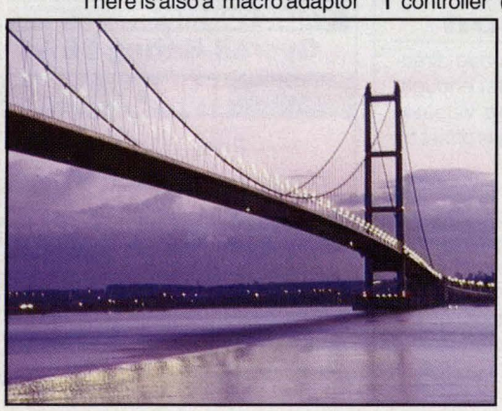
Work is going on at present to produce a suitable EX for the Scala system and once this is completed the Ion will add yet another dimension to the Amiga's number one multimedia station, and in so-doing will overcome the slight loss of quality mentioned above. There is already an Ion EX available for Scala, but this controls the Canon Ion 'RV321' series of still video players and not the camera itself. So while this means that you can, in fact, get this superb quality within a Scala presentation Now, it requires the purchase of yet another piece of equipment, and these players cost over £2,000! Obviously, Scala control of the camera itself is most desirable and something to look forward to.

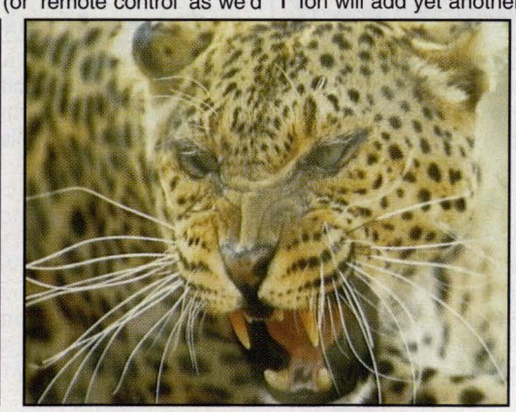


A screenshot showing high-quality thumbnail images, facilitating easy editing of the images.

With the increasing development of still video equipment and a steady drop in prices, it's natural to ass-ume a greater integration of it within the multimedia umbrella - and the Amiga could be a part of this. Canon are recognizing the viability and superiority of marrying their still video equipment to the Amiga and providing a lower-cost (with no loss of quality) option.

The RC-260 - the "hobbyist" version - has recently been substantially reduced - by almost £300, to a recommended price of £304.33 and is now being sold by Amiga dealers Hobbyte. ***AUI***





Two examples of the quality possible, copying slides with the Ion camera and slide adaptor.

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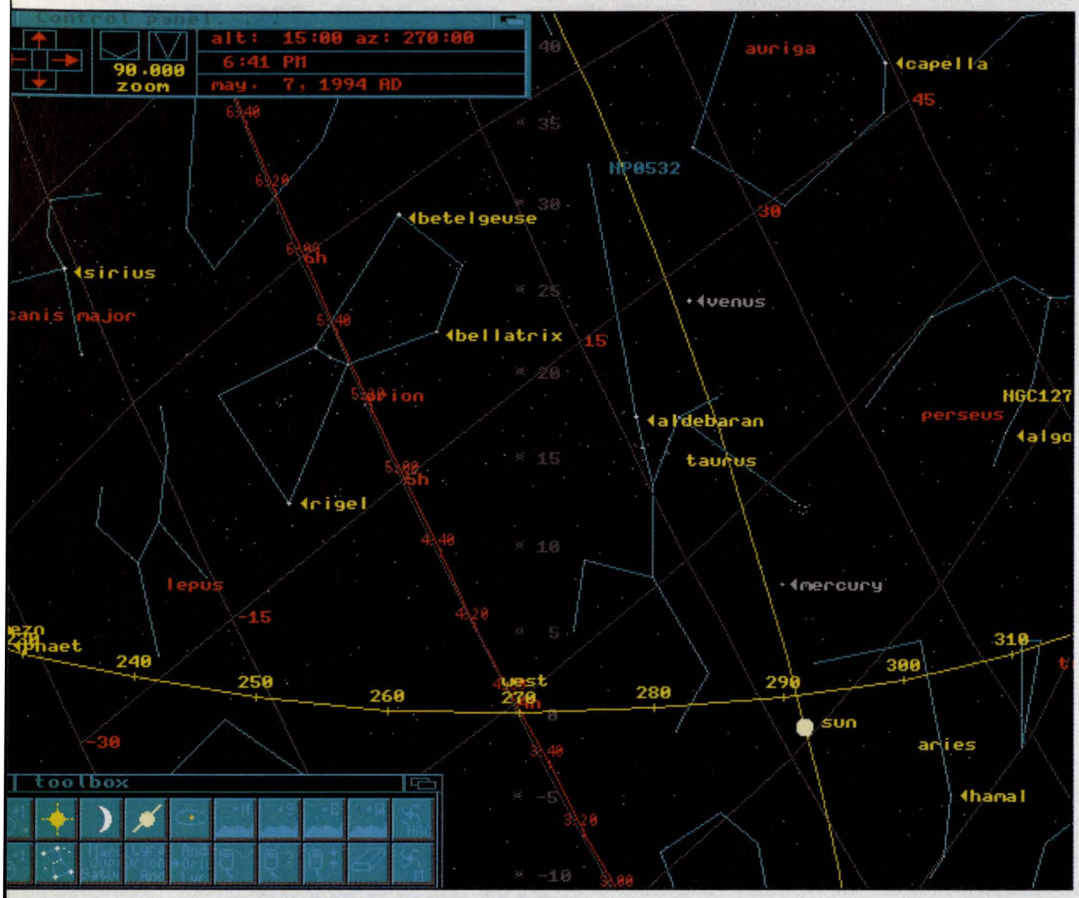
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Everything! - A screen with all name and grid options showing.

DIST SU V5.

Alan Puzey test drives a wondrous new version of a program that leaves non-Amiga believers gaping in awe.

Distant Suns has been with us for many years now. In 1987 it first appeared as a one-disk program for the Amiga entitled "Galileo", and has since grown to a five-disk pack. The previous version, v4.2, has been around for two years and took up 2.1 meg of hard disk space but the new version has grown to nearly 4 meg.

REQUIREMENTS

Distant Suns v5 requires AmigaDos 2.04 or greater, at least two meg of ram (1 meg chip) and a hard drive. It can take up to forty minutes to install the disks on unaccelerated Amigas, or approximately twelve minutes on a 68030 machine. It works at a satisfactory speed unaccelerated and is pretty darn fast on 68030s or above.

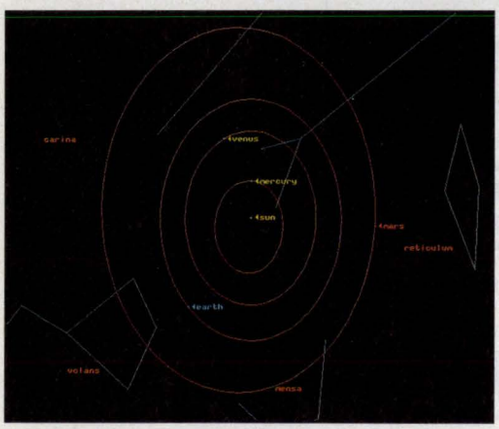
FEATURES

Distant Suns can display the night sky from anywhere on earth, at any time between the dates 4,713 B.C. and 10,000 A.D.. Alternatively you can position yourself on other planets or in "outer space" and view the earth or other objects from there.

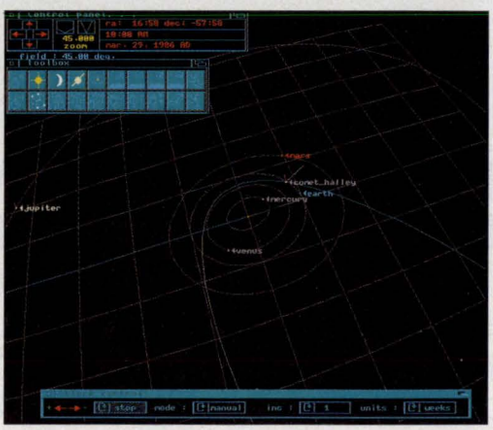
Apart from the planets of our solar system there is a core database of over 4,000 stars that will be drawn onscreen if they appear in the chosen field of view. An additional 255,000 stars are on tap in the 'extended stars' menu option. With "Distant Suns" it is initially common to view the night sky directly up from where you are positioned, or to look above the horizon towards north, south, east or west. Any amount of alternative views are possible but these provide easy orientation for the star-gazer.

There are over sixty pull-down menus, many with sub-sections, which give you comprehensive control over the program and an almost limitless number of options. For example, you can overlay the star fields with names, further information, constellation outlines and astronomical grids. Although the inbuilt clock will normally ensure that the program boots up with the sky as it is at that time, this may be changed to any other time; or time may be made to flash by - in minutes, hours, days, months or years - depending on the time scale of the phenomena you wish to watch. You could use minutes to watch an eclipse and months or years to view the approach of Halley's Comet. Using the program in this way produces an animation of events in space, which may be saved as an anim file.

You can zoom in or out of any viewpoint; identify any object (star, planet, nebulae, asteroids, etc); bring up an IFF picture of the



ExtraTerrestrial - a view of the planets from outer space

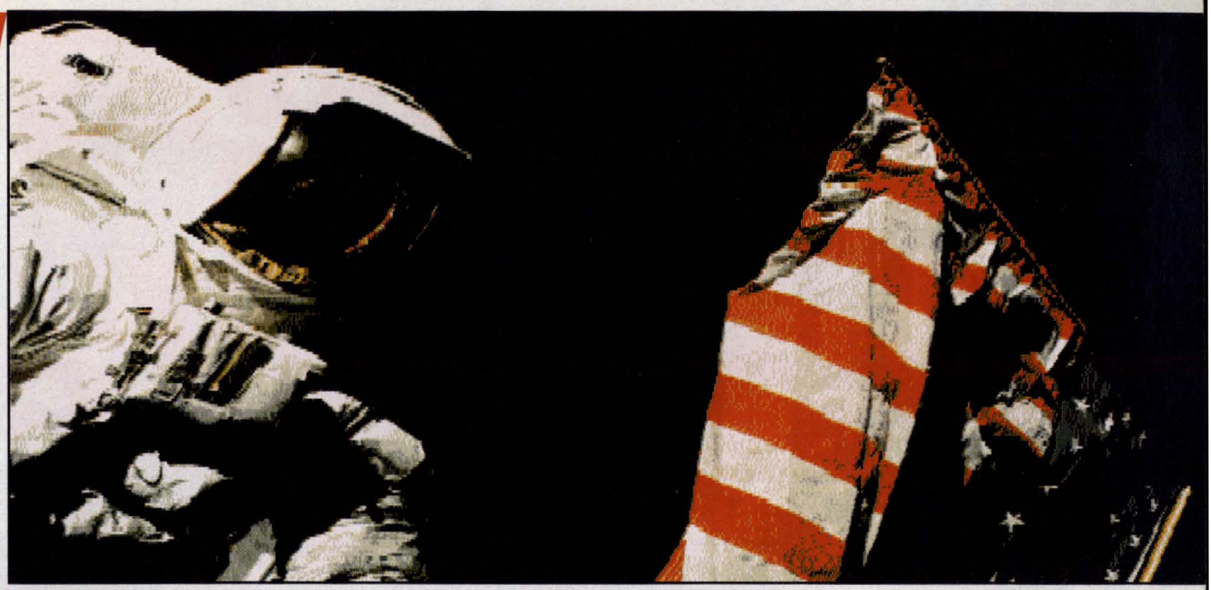


Halley's Comet - The start of an animation showing its approach



LunarEclipse_state - The screen after opening one of the many special 'states' supplied

ANT NS 00



Even famous images such as this one are supplied.

more common objects; search for objects; add new ones as they are discovered and even test your knowledge of the constellations by using the "Flashcard" option. This randomly selects areas of the sky and invites you to identify the constellations shown. By pressing a 'show' button, the constellations are then outlined and named and you can see if you were right.

NEW FEATURES

The additions for version 5: the program now boots up with an on-screen toolbox containing twenty of the most-used features that you previously had to hunt for in the pull-down menus. This is a very welcome addition.

You can now render views of the planets in 3-D and see them in motion. There is a new database of 8,000 stars from the 'Hubble Star Catalogue' and you can now view AGA images; seven new AGA images having been added to the original twenty one IFF ones.

There are additional menu commands and a greater selection of ARexx controls. The new 130 page manual is just short of excellent. It would serve as an introduction to astronomy in its own right and the greatly improved layout makes using the program much easier.

Though Distant Suns is an easy program to use in its basic form - particularly in V5 with the onscreen toolbox, you naturally have to read the manual carefully to use the more involved options, of which there are so many.

A great aspect of the manual is the numerous tutorials - allowing you to watch solar eclipses, lunar eclipses, planetary movements, comets, asteroids, star clusters and star trails. The time and place for the most spectacular of these (e.g. the approach of Halley's Comet in 837 AD when it was only 15 times further away than the moon!) may be saved as a "state" file and many of these are supplied within the program.

Being a keen amateur astronomer, I use Distant Suns more than most programs, probably three or four times a week - for plotting the night sky and then using a telescope or looking at the stars, or simply for increasing my knowledge using the many available functions within Distant Suns.

If I'm going abroad - it's particularly useful to plot a few night skies for that area, on dates when I know where I'll be - and print them out.

There are at least two alternative astronomy programs for the Amiga, but for me they don't compare with the features and delivery of Distant Suns. When I'm demonstrating the Amiga to non-believers, I find that apart from a good graphics program, Distant Suns is the one to leave them with mouths gaping in awe!

Past editions have occasionally crashed when I've been doing lengthy procedures, but as yet V5 hasn't. The option of normal, dim or red screen modes is very professional; the latter two mean that you can work on the computer, then go out-side, or to a telescope, and your eyes are well adjusted to the low light levels.

Distant Suns is one of the great Amiga programs. Obviously if you have no interest in astronomy, then it's not for you, but whether you're an advanced astronomer or a beginner - Distant Suns is ideal for both. There are so many options that I'm still working through them after years of constant use. ***AUI***

RATINGS

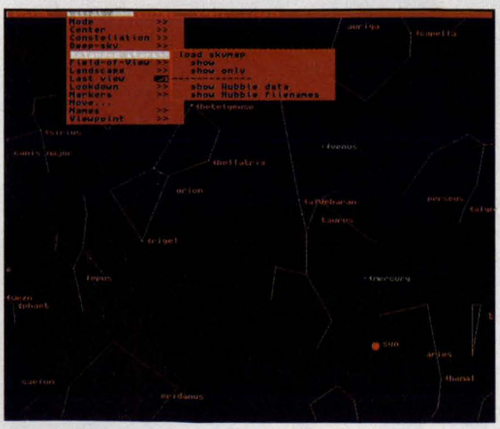
Distant Sun V5

FEATURES	95%
PERFORMANCE	95%
EASE OF USE	85%
DOCUMENTATION	90%
SPEED	90%
VALUE FOR MONEY	92%

Overall Rating 92%

INFO

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Menus - Use this to preserve your night vision.



North - The sky looking north, with horizon onscreen.



Opening Screen - Showing new 'toolbox' and 'control panel'.

Riding The LightWave

One of the world's greatest 3D packages has been let loose to set the rest of the globe alight. Gary Fenton explains what it's all about.

NewTek have officially released LightWave the standalone program that was responsible for the special effects on such TV shows as Babylon 5. LightWave is one of the finest 3D rendering programs in the world. That's not just my opinion but that of thousands of current users in America who bought LightWave as part of the Video Toaster set up. As you probably know, the Toaster is a video board for the Amiga which performs incredible tricks that rivals £50,000 machines but costs a mere £1300. Sadly it only works with NTSC (American) TV systems so hardly anyone in Europe could use it, yet alone access the power of LightWave.



A space scene demonstrating lens flares. I added flames to the spaceships' engines as 2 transparent objects with fractal noise diffusion. It took 30 minutes to render with an 040.

NewTek have now seen the light(!) and LightWave should be available to everyone who wants what it can offer above and even beyond rival 3D packages. What really makes LightWave stand out from the crowd is that it gets used on TV shows like seaQuest DSV, The X Files, Unsolved Mysteries, Babylon 5 (Channel 4, Mondays 6pm), and the forthcoming Star Trek: Voyager series from Paramount.

The most striking thing to notice first about LightWave is its ease of use. You don't have to be a programmer, a graduate of Real 3D's interface, or even confident to get into LightWave. A quick play with the mouse and you'll soon see that the interface presents no obstacle.

There are two main screens in LightWave. The Layout editor is for directing the scenes and the Modeler is for creating objects from scratch and modifying old ones. Both of these editors are linked together in a way, so from the Modeler you can directly import an object from the Layout editor, modify it, and export it back into the scene.

Layout Editor

Here, all of the light rigging, directing, and choreography takes place. The main window into the 3D world takes up the best part of the screen while the navigation and object selection buttons are found to the left of the screen. Frame and parenting controls are placed underneath the 3D window and the rest of the features are found in LightWaves menus.

LightWave has an unusual menu system which I personally prefer to regular Amiga menus. Clicking on one of the menu names at the top of the screens opens up a large window in the centre of the screen, which incidentally becomes ghosted when a window is active. Selecting objects, or textures, from menus is done by holding down the left mouse button so a list type menu appears under the mouse and the list can be scrolled by moving the mouse accordingly. The right mouse button isn't used at all for menus.

Moving around in the 3D world is done very naturally by holding down the left mouse button while moving the mouse forward to go forward in space and shifting left and right corresponds to left and right movements. Up and down movements are controlled by holding down the right button this time and moving forward with the mouse to go up. As the mouse is moved, all the 3D objects in the scene turn into simplified shapes and move in realtime with your mouse.

Lights are represented in the wireframe 3D window as a 3D asterisk for lights which are just a point in space, or as a model of a spot light with barn doors and lines flaring out showing how far the light is spread. The camera is drawn as a box with 2 "reels" on it, just like a movie camera. All of these objects move around in real time too when you decide to shift things about in a scene. This concept of a "virtual" world is very similar to rival program Caligari and I advise you to "play" with it for yourself at your nearest LightWave dealer. It's a joy.



The 3D window can be switched to view scenes from different angles, such as from above, behind, and side on. Additionally, really useful points of view can be arranged at the press of a button from behind any light which is extra handy for directing spot lights with narrow beams. Finally, we have the camera view which shows you how the final rendered image will appear, but in wireframe form.

Key Frames

The simplest way to animate scenes in LightWave is to create a "key frame" every time an object is moved to a new position. When a key frame is created, LightWave remembers where each objects is in the scene and which way it's facing. When you have at least two key frames LightWave can work out how each object gets from the position in the first key frame to its position in the second key frame. The in-between frames are calculated by LightWave, saving you hours of extra work. The cool thing about LightWave and key frames is that the whole animation can be forward and rewound in real time giving you an instant idea of how your animation is developing. For detailed animation previews, the Make Preview feature will create a wireframe animation which, after a very fast rendering session, can be played back in realtime using LightWave's VCR style controls.

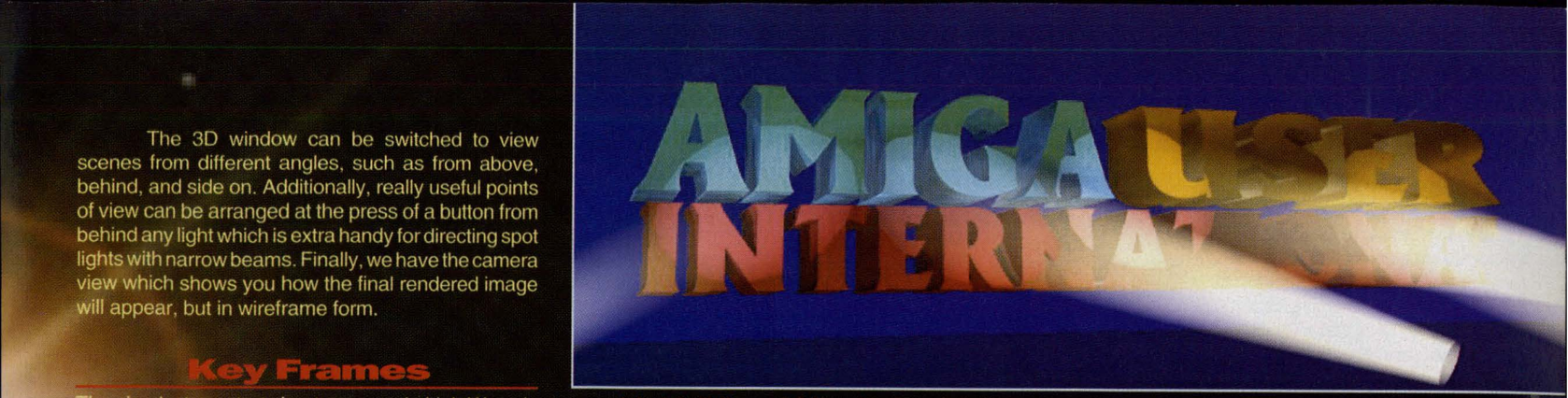
Spline Motion

In real life objects don't start moving suddenly with acceleration speeds of 0 to 60mph in less than one second (unless you've been pushed out of a plane!). Cameras also never perform jerky pans and objects don't change direction without being affected by de-acceleration and momentum. I'm describing linear motion which is always one thing that can ruin even the best rendered animations.

The solution is to use spline motion which can best be described by comparing it to a curved graph and linear motion to a sharply angled line. Indeed, LightWave actually uses graphs to aid you in creating perfectly smooth animation. Imagine a ball bouncing and slowing down as it reaches the highest point in its bounce before falling back down to earth. LightWave can help you master these natural effects that are taken for granted but it may take a while before you can get it right first time.

LightWave defaults to using spline motion and curves but the linear option is still there if you should ever need it. Spline curves can be tailored by playing around with Tension, Continuity, and Bias controls. These give you the flexibility for accurately defining most of the physical attributes of motion. Because LightWave doesn't currently compute gravity, wind, and collision for you, it's up to you to work out how any of these extra factors affect your object.

If you have the whole Toaster outfit you can buy extra modules for LightWave which automatically compute gravity and collision detection. I am told by NewTek that these modules may not work with the stand alone version of LightWave, but I can only hope that the developers of these modules rewrite them so they work magic for us Europeans.



I cheated with the search lights and used an actual object to create the beams, but I did attach a real spot light to each beam object to create light.

your "virtual" cameraman can change the focal length on your command bringing another object into focus.

Lighting

Lighting plays a very important part in all visual arts; filming, photography, stage, and computer graphics. Some people find it hard to achieve the same light effects in a 3D world that they've pictured in their head. For some reason I just can't produce disappointing lighting effects with LightWave! Is this what they call movie magic, good luck, or just plain skill? A combination of all three, I think.



The space scene from a different camera angle showing a huge destroyer closing in for the kill.



An example of just a few texture combinations. Shadows, reflections, and low anti-aliasing was switched on.

Envelopes

Not the kind you address to Claire Rayner, but graphs that describe how a particular attribute behaves. These graphs are of the same kind that are used for spline motion but also work with light and flare intensity, metamorphing (changing one object into another), camera zoom and focal length, fog depth, object scale, and several other factors in various departments. Because a visual graph is used, you can quickly see at which frame an event takes place and how powerful that event is. If you don't like the settings then just drag the points on the graph using the mouse - it's really that simple!

Using envelopes with lights is a bit like using a lighting desk. Lights can be faded up and down at any point throughout a scene and in the same fashion

There is so much control over lights which allow you to create all kinds of moods and special effects. The most obvious effect which has now become LightWave's trademark is the lens flare. Turn it on and scenes instantly become more realistic as high intensity light forms apparent streaks and circles.

The opposite of light is darkness and LightWave demonstrates excellent results with shadows and shadow maps. Shadow maps add extra realism for creating soft edges to shadows which differ according to the position of the light and the distance between an object receiving shadow and the object casting it.

Textures

LightWave calls its textures menu Surfaces, both words being similar but not too similar to argue about the differences! Eh? Anyway, support for textures is good, but on first inspection appears limited to just a

handful of built-in textures including wood, marble and fractal noise.

Extra textures can't be added to LightWave as easily as they can for Imagine, for example. However, with a bit of imagination and experimentation all kinds of textures can be mastered by altering the variables of the supplied textures. Fractal noise can be used to create gas clouds and flames, and stretching it out can be used to obtain a dirty effect on an object, or wood can be used to create all kinds of wood varieties, such as cork or mahogany.

By far the best way to bring dull objects to life is to use real digitised images of textures and map them onto their 3D counterparts. LightWave handles brought in images very nicely and doesn't necessarily slow down rendering times. Although the current version of LightWave (I'm reviewing 3.1) only allows one texture per attribute to be mapped, there are clever ways to get around this restriction. For example, you don't have to use a bump mapped surface to create a bumpy effect. Adding a bump map texture as a diffuse texture can also do the trick. You can also map a picture onto an object as the colour attribute and use diffuse and specular setting to add a wood texture.

To save rendering time, images can also be used as a reflection map. If set up correctly they can fool your audience and save you hours of precious time. In a similar way, using a digitised picture of rock as a diffuse map can save you hours of work carving a rock face in the Modeler and rendering all those extra polygons. This "cheat" was used for creating long shots of rocky surfaces in seaQuest DSV. However, real bump maps should be used for close up shots.

Anti-Aliasing

To remove jagged edges from your rendered images you'll have to switch on anti-aliasing. LightWave is very good at changing a pixelised picture into a smoothly detailed one. With anti-aliasing on LightWave re-renders parts of the scene but slightly offsets it from the previous render to achieve smoothing. Apart from just removing noticeable pixels, it can add detail to texture and allows you to use extra effects like motion blur, depth of field and the soft filter.

There are three levels of anti-aliasing and the sampling threshold can be altered which gives a large range of quality levels to choose from.

Modeler

After you've played around with the supplied objects you'll soon feel the urge to create your own objects from scratch, or even modify existing ones. All of this can be done from within the Modeler using its point and click interface, although you can actually work quicker using keyboard shortcuts and numeric inputs.

There are three main views to work with; top, behind and side views. A fourth view can be used to generate a 3D view which can also be animated, swinging back and forth giving a good idea of the objects shape.

Many tools have been included to make the user's life easier but there is an unavoidable learning curve for newcomers to climb - just is the case with all modelling programs I've used. The easiest things to make at first are primitive shapes (a click and a drag of the mouse), and text is also very simple to incorporate. Modeler supports Adobe and Postscript fonts which are cheaply obtainable and can be scaled up to huge sizes without losing any detail.



The Modeler: You can jump back to the layout editor by clicking on the Layout button in the top right corner.



The Layout editor: Highly intuitive to use. You hardly need the manual!

A sketch tool lets you draw out the shape of your object which can be finely tuned after you've finished drawing. Apart from simply extruding 2D sketches into basic 3D ones, Modeler supports paths, or Rails as Modeler prefers to call them. This feature uses the shape of one object to follow the path of another while creating an extruded image of itself. For example, imagine a triangle following the path of circle. This will extrude to become a hoop made out of a three sided tube.

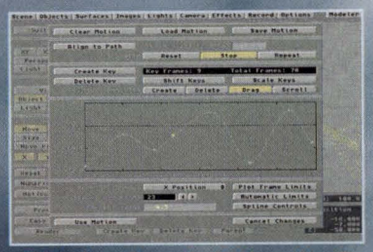
System Requirements

Any Amiga running Workbench 2.04 or greater with 8Mb of RAM can be used to run LightWave. An FPU is not necessary but will greatly increase rendering speeds. I advise serious users to have at least 14Mb total RAM and a big hard drive (200Mb++). The PAR board is a recommend extra if you need to playback high quality animation in real-time.

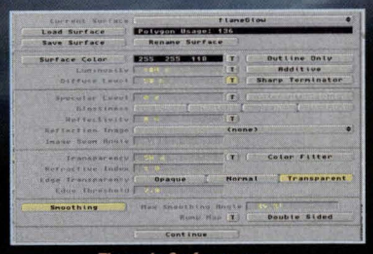


Various LightWave objects collected together in a scene.

A lot of fun can be had using the flex and deform tools from the modify menu. Objects can be twisted and squished, and bent and spun into all kinds of weird shapes. My favourite tool here is Vortex which whisks an object into whirlpool. With a bit of practice this can be animated to become a tornado.



This is the motion graph which is used to edit spline motion of objects. It couldn't be easier.



The main Surfaces menu.

The most powerful aspect of the Modeler isn't actually, in my opinion, a modelling tool, but its ARexx support for macros. Using the ARexx scripting language all kinds of power tools can be conjured up and shared amongst LightWave users. Plenty of macros are supplied to get you going which are all controlled through their own user interface from within Modeler. Some macros let you curve text (great for logos orbiting a planet), or create platonic solids (how about an icosahedron!), or instant sea shells, and loads of other useful (and some totally whacky) tools.

Conclusion

I have waited years for the one program I have heard so much about but never got the chance to use until now. Far, far from disappointed I am totally absorbed with LightWave. Things I struggled to do with Imagine (2.0) I can do so easily with NewTek's far too long awaited "killer app".

Its sheer ease of use alone is an open invitation to experiment with the possibilities of 3D modelling. With the right textures and lighting scenes can appear photo-realistic and rival the output of high end competitors such as 3D Studio and Alias. NewTek wish their program to be compared to other professional packages and the price tries to reflect this. The price of about £559.00 is a fraction of the cost of rival programs on other platforms but is double the price of some Amiga 3D packages! It's a fair compromise which is nothing less than a bargain for professional users (like Paramount!) but maybe it's too expensive for the average Amiga enthusiast to buy.

How can I sum up the package which gave us Babylon 5's amazing space scenes and has been blessed by Paramount to be used on Star Trek? This is THE Amiga 3D package, which may not have the extra features of Real3D but it doesn't have the difficult interface either. LightWave produces impressive results from day one, backed by all the essential powertools you need, no wonder it's become such a star in the States. This product has once again made me proud to own an Amiga! A must buy for serious animators. *AUI*

RATINGS

LightWave

FEATURES	95%
EASE OF USE	96%
PERFORMANCE	93%
VALUE FOR MONEY	90%

Overall Rating 95%

INFO

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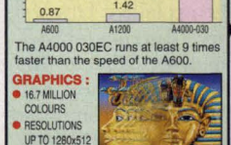
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Phil Osborn ventures into an increasingly real world of Californian virtual reality and finds traces that "The Amiga was there first".

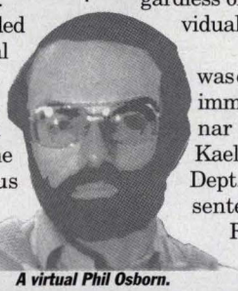
Meckler VR94



"These agents could be robots, virtual playmates . . ."

There were several different seminar "tracks" running concurrently at the Meckler VR94 Virtual Reality Show, but there was no official taping of any of them, which meant that I could only cover, at best, a small fraction of the presentations. I opted to avoid seminars that looked like they would simply be industry product promotions - except for the Amiga products.

The first session I attended was entitled "Designing Virtual Actors," given by David Zeltzer, Principal Research Scientist, MIT. Zeltzer's talk involved a lot of diagrams showing how the structured, semi-autonimous behavior of a intelligent virtual entity was built out of low level reflex arcs, focused activation nets, and the like, finally yielding products such as a virtual humanoid robot capable of tracking objects with both eyes and hands.



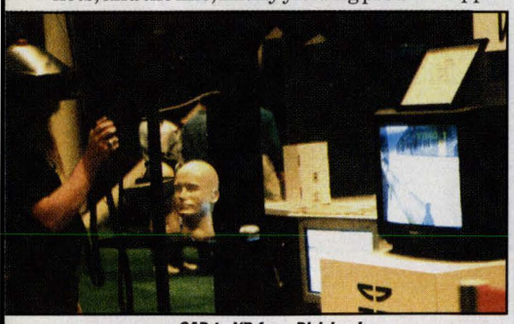
A virtual Phil Osborn.

One current practical application of Zeltzer's work is ARPA/DARPA (military) tactical air mission planning and simulations in which components such as the virtual "camera" are intelligent agents that know how and when to do things like slow pans instead of jumps. Another is presentation or tour agents that can guide one through a virtual art museum, for example, with user instructions like "Show me all the Picasso," calculating smooth paths regardless of the positioning of individual art works.

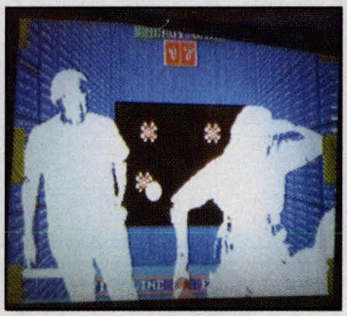
While Zeltzer's work was certainly interesting, the immediately following seminar was dynamite. Leslie Kaelbling, Computer Science Dept., Brown University, presented "Agents as Virtual Robots: Applying Techniques from Intelligent Robotics to VR." which appears to be something of a sensation in its field. Her talk concerned how to build agents, whether as VR entities or real robots.

These agents could be robots, virtual playmates, meeting schedulers, you-name-it. The problem has been how to reconcile the abstract level of programmed factual information with the need to learn and adapt dynamically and naturally in a real or virtual world. Kaelbling explained the difficulties involved. One interesting problem was how long an agent should spend testing solutions before opting to risk using a particular approach.

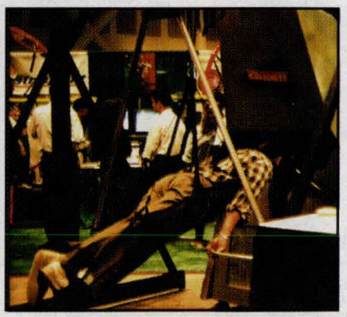
For example, a real agent such as a human can drive a car while at the same time deliberating on how to manueovre in traffic ahead or on the best strategies for steering in a stretch of mud or snow. Agent designs which relied upon purely abstract models, however, could only respond as programmed, while those which learned from interaction could easily be overwhelmed by incoming data and wreck the car while pondering the variables. A difficult choice!



CAD to VR from Division Inc.



Mandala (Amiga version) VideoPlaces from Vivid Effects. Reach out and kick something. . .



Wait 2 hours after eating, please. Virtual voyages from Greystone Technology.

Kaelbling's solutions meant moving from traditional programming which assumed no changes were made during computation to a an approach which allowed the agent to react quickly to the environment. Other strategies evolved, such as adding a "slow planner," which watched and analyzed, but didn't interfere with lower level activities unless it had a solution to offer. This work led to precise mathematical formulations of just how much effort to spend in any situation on analysis versus action, which allowed Kaelbling to integrate learning with knowledge in agent design.



While this may seem a rather dry subject matter, it is precisely these issues which lie at the heart of what we assume will be the breakthrough areas of the coming decade in both games and more mundane activities in CyberSpace, such as "real" artificial intelligence.

Another interesting seminar was Richard Satava's "Telepresence Surgery." Satava, a medical doctor, is a regular at VR conferences, and his presentations are always worth seeing. This time, he explained how the state of the military VR art has evolved.

The complete soldier of the future (i.e., five-ten years hence), will have, it seems, a powerful computer woven into his clothing and will wear VR glasses and a video pickup, along with other electronics which will precisely locate him and allow him to see himself located precisely on a constantly updated strategic map. (The slide looked like something right out of Aliens II.) He will also wear a medalert bracelet, which has already been prototyped, which will instantly notify the local net of any change in his medical status. If he is wounded, a whole networked, multi-level, integrated system moves into action to try and get state-of-the-art care to him during the "Golden Hour" of battlefield survival. The motto is "a surgeon in every foxhole."

The delivery system starts with the medic finding the wounded man via the location system and then networking with the on-line surgery system for advice. The man is then moved to a "Medfast" van, which contains a

complete operating theatre with robotic surgeons controlled directly via telepresence by a top surgeon at the local MASH or stateside, if necessary.

Last year at Meckler, we saw the telepresence robotic surgery in action. Now, the schedule is to have this complete system in prototype by '95 and in Beta test in '97. Of course, the military VR stuff moves into the commercial realm very quickly. SIMMNET, for example, allowed hi-res 3-D battlefield simulation VR involving tens of thousands of participants over phone lines. It was upgraded to DIS some two years ago, and now the SIMMNET software has been released to public domain and you may be shortly playing some real dyno games on-line as a consequence.

VideoPlace

So what about games? And the Amiga? (Not as though there's any connection...)

Well, back about twenty-five years ago, Myron Krueger began work on something called the "VideoPlace." In the VideoPlace, you saw your video image mapped into a virtual world, and you could directly interact with it. VideoPlace used university Mainframe power and was capable of not only doing edge detection on the incoming image, but also shape analysis, so that the system responded intelligently to your body language and conformation, not just to what your image touched.

In '86, Vivid Effects of Toronto released a scaled-down VideoPlace clone called Mandala on the Amiga. It worked superbly, everyone raved about it, everyone wanted one, and it went nowhere because of possibly the worst marketing in world history on the part of Vivid Effects. Nonetheless, it showed up on the TV chilren's program Nickelodian, where it became a key element of the Show.

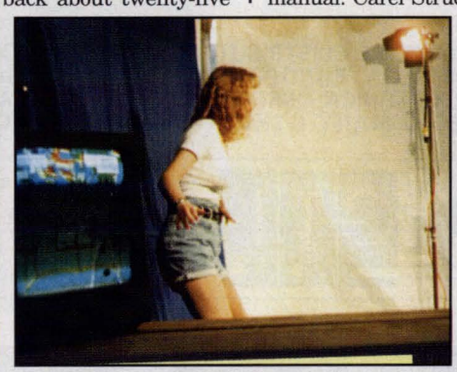
The original Mandala was combined a visual-authoring multimedia user interface with support for laser disk, MIDI, AREXX, serial port, internal Amiga sounds, and much more. Even without marketing, possibly a hundred individuals have developed custom Mandala applications for use with performance art, education (especially with the blind or disabled) or training. What it does is allow you to be videoed by camera and by your movements set off actions that can be seen on the monitor or TV screen. A little like the way the TV weather forecasters appear but aren't actually; in front of a map.

With halfway intelligent marketing it could have been the Video Toaster of the mid-80's, made tens of millions of dollars, and maybe even helped to save the Amiga from its present fate.

Since '86, Joe Shen of Tensor Productions, became fed up with Vivid Effects and released a Mandala clone called CyberScape for the Amiga, which adds some new features, such as a Mattel PowerGlove interface, but lacks the visual authoring interface. Several companies and individuals are now developing commercial products in CyberScape, although they are having to deal with the utter lack of a usable manual. Carel Strucker, for example (who plays Lurch in the Adams Family movies) has produced quite a number of very nice games and has developed an application for physiotherapists in CyberScape.



Low cost VR for everyone from VRASP



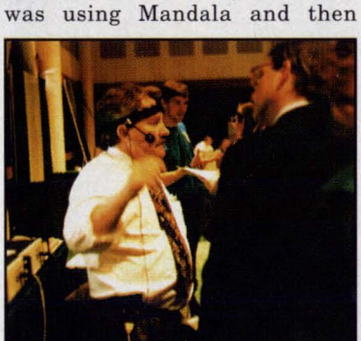
Mandala (Amiga version) VideoPlaces Reach out and touch something nice . . .



The City Which Does No Exist. Real-time Desktop VR tours through paintings by Giotto. From ENEL.

InVideo Systems

Meanwhile, Dean Friedman, now President of InVideo Systems, Inc., was using Mandala and then CyberScape on Nickelodian and decided to strike out on his own. It has been thought for nearly a decade that VideoPlace could take the arcade market by storm, but Vivid Effects effectivly stood in the way. Friedman is now doing something about that. He has rewritten a VideoPlace system on the Amiga, building on his Nickelodian experience.



BioMuse system from BioControl Systems. Last year this was shown running on an Amiga 500, controlled by a quadraplegic 18 month old girl.

Friedman, who was responsible for creating an Amiga-based "experience" at the Children's Museum in Halifax in Yorkshire in the UK, gave two seminars at Meckler. He is now offering and/or building/planning applications in all the areas we originally thought that Mandala was going into back in '86. His big product at present is a coin operated arcade system that is completely controlled by the player. The player can chose the game, the level, etc. without physically touching anything. The InVideo system scales itself to the user, so that a small child and a large adult can both use the same hardware. As Friedman pointed out, for safety, health, hygiene, throughput, maintenance, and attendance, InVideo is distinctly superior to VR involving Head Mounted Displays.

One serious problem that has plagued the Amiga VideoPlace applications has to do with the LIVE! board. Some readers may recall that LIVE! was demonstrated by Andy Warhol at the '85 New York roll-out of the Amiga. Then there were problems with bugs that delayed commercial release for almost two years. LIVE! provided real-time capture and simultaneous programmable manipulation of incoming video, much like the Toaster, but only in the Amiga native display modes. There has never been a replacement for LIVE!, however. It is the only hardware ever produced for the Amiga that supported the real-time edge detection needed for VideoPlaces.

LIVE Boards

ASquared, the producers of LIVE!, meanwhile nearly went out of business due to lack of demand. Multimedia was virtually unknown back then and LIVE! was a $500 (£300) board, hand wired, due to lack of demand. Then you needed a video camera and some extra memory.

So, today, used LIVE! boards sell for as much as they did new in '88. In the week following or during Meckler, I had four offers to buy one of my A2000 LIVE! boards for $500 or more. Friedman, with 50,000 arcades to install, is desperate for LIVE! boards, as is Tensor Productions. ASquared, however, is down to one part-time employee who takes orders until he has enough and then gives them to the one guy who knows how to build LIVE! - by hand. Friedman is talking about moving to SGI, although this will force him to raise prices and write new software. The arcade market may support £20,000 installations, but what about schools and homes? LIVE!-based VideoPlace should and could have been in every classroom and home by now but Friedman may have to give up those dreams if he has to move from the Amiga.

Vivid Effects has already gone over to the PC platform. Their new PC Mandala systems start at £15,000+. InVideo is similarly pricy. The only products now available for authoring VideoPlace applications are CyberScape at £150 + Amiga + LIVE!, or Myron Krueger's own system, which runs on very expensive machines.

Apart from the VideoPlace applications, I didn't see or hear anything about the Amiga, which pioneered low-cost VR with Mandala and Virtuality. (Anne Glover of UK-based Virtuality - which used to be called W Industries - informs me that they have moved away from the Amiga.)

The general feeling at Meckler was that the public is going to shy away from the boxes like CDI, 3DO, CD32, etc., and simply buy PCs and plug in MPEG and multimedia cards. 27% of American homes now reportedly have PCs. Larry Miller of New Machine Publishing gave a talk entitled "Virtual Sensuality," in which he described how he and two other kids right out of college authored their first product, NightWatch, for the Mac in four weeks, just in time to make MacWorld, where it became the 2nd best seller at the show. They now have 29 CDROM titles. They write for Mac, PC and 3DO (and I suspect they will drop 3DO unless it shows some market life). Of course, the Amiga could still grab market share with a killer product.

There was a lot more of interest going on at Meckler VR94. Many educational and corporate training VR systems have recently been prototyped or are in actual commercial service, often based on arcade sytems such as BattleTech. For those who want to get into the field, there are several VR magazines and books now available and the VR SIGs on the nets are growing rapidly. This is the next big thing - for real. Perhaps someone will buy the Amiga and get LIVE! back in production and upgraded. If not, at least we can say that (once again) we were there first. ***AUI***

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The Moving Target



Smoke signals, heliographic mirrors, drums, pigeons, even bottles thrown into the sea... The human race would use anything to get its message across. But now the message is an electronic one for we are living in an ever more "phoney" world.

The telephone has been around for about a hundred years but it really started to take over with the coming of direct dialling. No more operator interference, it's person to person all the way now. Quick and easy. Well, it's supposed to be but it is believed that in the UK, some 20% of all dialled calls don't reach their destination. As the joke says, "If I've reached a wrong number, why did you pick up the phone?"

But picking up the phone is an action almost impossible to resist. The telephone has been called "the most intrusive device in the world" yet more and more activity is being conducted through it, especially as phones get smaller, fibre optics makes calls cheaper and telecommunications networks spread across the globe.

The telephone is rapidly becoming, as our article on the Internet in last month's *AUI* showed, the connecting link between the world's multiplying computer users. The recently arrived popularity of the phone line-based facsimile machine is quickly being eclipsed, even absorbed, by the modem, with more and more computers equipped with fax modems. For years the least popular part of computing, particularly among Amiga users, "Comms" has suddenly become the in thing.

Perhaps most noticeably, the telephone is also now the means of speeding up communication between people on the move - and today's world is an increasingly mobile one. The tiny, shirt pocket-size phone is no longer the exclusive domain of the travelling salesman, the poseur - or more dubiously still, the drug dealer.

Mobile phones, common among the pavement dealmakers, the carborne business people, have emerged as the everyday tools of jobbing handymen like plumbers, of district nurses, even we are told, of gravediggers. They are advised for lone drivers, especially women, and are appearing in buses, trains even planes. And mobile phones are very big business indeed. Vodaphone, now worth over £2 billion and one of the UK's two major networks - Cellnet is the other - has just announced that its new users have virtually doubled in the last year. In the UK where the field was once the monopoly of BT, others like Mercury are muscling in. Even the TV cable stations are offering telephony services so that they can cream off the huge profits that will be generated from the cradle to grave telecommunications coverage that is being created.

For the phone lines are, fibre optically, going to be the ground through which the heralded "information superhighways" are to be driven. Wherever you go, whatever information you need, whoever you want to communicate with, it is becoming clear that the telephone will be the instrument to connect you and your computer - or your TV set top Amiga-based box - with the outside world. And it will connect that world to you. For this inescapable instrument, this interrupter of meetings and meals and baths and love making, the telephone, is the universal weapon in the communications revolution and it is aimed directly at you. Pick up the phone. For you, yes, you personally, are its Moving Target.

Wait, don't hang up. It will ring again and again and again. And you, like all of us, have no choice but to answer it. It's a call from the future. And make no mistake, it is for you personally. But the more you know about the future, the better you can deal with it. So this *AUI* Special Report is intended to give you the information you need to come out on top in what is surely going to be an ever more phoney world.

A PHONEY WORLD?

A PHONE



Mobile telephones - poseur phones - are exclusively a yuppie status symbol, right? Wrong. For almost anyone on the move, from plumbers to business folk, mobile phones are becoming part of everyday life. Many adverts are soon forgotten, but we bet you can recall the one where a driver is stuck behind a herd of cows and calls home to explain the delay.

Car mobiles are now advised by automobile organisations as an additional safety precaution particularly for women drivers after a spate of murders and muggings where the victim had to leave the car to walk to an emergency box. Costs for mobile users are now being cut to penetrate new markets outside the traditional user base of business subscribers. Lower cost packages are being offered through massive advertising campaigns to expand the appeal of mobiles. Forecasters are saying that these downmarket prices will help the growth of analog cellular services to a Europe-wide peak of 7.5 million subscribers by 1996 after which digital services will dominate the accelerating market. As the world becomes ever more closley linked through the telephone lines to the computer-based networks. So here's the *AUI* Easy Access Guide created by the *AUI* team, led by Ashley Cotter-Cairns to what's buzzing in the expanding mobile communications universe. Read and dazzle the world with your leading edge info.

EASY ACCESS

CELLULAR

An area providing mobile telephony has a number of base stations known as cells, each of which has a transmitter and receiver. When making a call a subscriber has sole use of a radio channel in the cell being used. As a caller's radio signal moves to another cell, a passing over occurs in a fraction of a second. Since no two cells use the same set of radio channels, a new channel is immediately allocated to the telephone user while the channel previously used is released at the same time for another caller. Clever stuff, eh?

Analog

The mobile telephone's conventional way of transmitting speech is by an electrical signal which matches the sound waves it represents. It is a form of communication subject to interference as well as eaves-dropping. (Someone should have told the Wales's.)

Digital

A process of transmitting speech using computer code, in other words those ones and zeros. Voice patterns are converted and compressed into numeric code; bits. The signals produced are not continuous in form but made up of pulses of electrical current representing the voice, fax or data to be processed. Digital is a more versatile technology than analog and gives higher quality of signals, adds security against eaves-dropping and has plenty more capacity.

GSM

The specification agreed by Europe, as well as a growing number of other countries for digital mobile telephones is known as Global Systems for Mobile Communications (GSM). Mobile users of GSM phones can operate them in any country. (Britain has been established "roaming" agreements with France, Scandinavia, Italy and Germany). In time it is expected that the whole of Europe will be a seamless network for GSM mobiles. (Take your mobile to the ski slopes with you!)

Y WORLD?

The GSM spec is designed primarily for mobile phones in automobiles. GSM phones have a computer smart card, known as SIM (Subscriber Identity Module) which is inserted in the telephone. The card contains details of the subscriber's number and allows the card to be used in any GSM phone with billing for any calls going straight to the subscriber. Just like a charge card.

Sone manufacturers - such as Panasonic with the EU 2000 weighing just over 8 ounces - have brought out new digital phones for thismarket.

Vodafone (which claims to have a 56% share of the UK market with 925, 000 subscribers) launched the Eurodigital GSM service last year. Their main competitor, Cellnet is due to start up a GSM service this year. Within the next five years the number of UK GSM customers is predicted to rise from around 18,000 to more than a million. (That probably means you too!)

Telepoint

This is an advanced cordless telephone system based on digital technology. Its use is restricted to larger cities but it offers a low-cost alternative to cellular phones. The system is designed to make outgoing calls only when a subscriber is within range of a transmitter point. In some versions a Telepoint phone can also double as a cordless phone in the home. (So people can 'rabbit' on no doubt!)

The advantages for subscribers include the frequency allows a much more efficient use of the radio spectrum and the clarity is improved by getting rid of of background noise.

The disadvantage for existing analog users is that they'll have to replace their present phones to use GSM.

Satellite Links

European airlines including Lufthansa, Swissair and British Airways are preparing to equip their long haul fleets with satellite communications (satcom) equipment for their passengers to make phone calls and also send fax messages. These already exist on Singapore Airlines and are likely to be available in many airlines in the next few years.

For ships, satellite services have revolutionised communications. The London-based International Maritime Satellite Organisation (Inmarsat) operates a satellite system for its 69 country membership which serves some 30,000 maritime, aeronautical, land mobile and transportable terminals. The Inmarsat-A system is now the established mode of communications for ships.

Inmarsat-A was used by television crews to broadcast from Baghdad during the Gulf War. It is in use by US doctors to transmit X-rays and other medical images from field hospitals in Somalia to specialists at the Walter Reed Army Medical Center in Washington.

More recent systems such as Inmarsat-C have antennae measuring just 20 by 15 centimetres and weighing in at six kilos. These are being used by UN observers in the former Yugoslavia and by relief organisations including the Red Cross and Medecins Sans Frontieres.

Inmarsat days it is trying to meet a demand for a wireless pocket-sized communicator able to provide voice, fax, paging and position location to and from all parts of the earth's surface.

The organization has already provided the specifications for Inmarsat-M - a briefcase sized mobile satellite phone unit - now being sold at around $15,000. Inmarsat says it is planning to launch the first the first global pager this year.

Inmarsat believes that opening up mobile satellite communications to mass markets will be through low cost, light-weight and increasingly portable mobile satellite terminals. It is now aiming at miniturization of equipment through "Project 21".

This project is intended to create the systems needed for a global go-anywhere, pocket-sized satellite telephone service by the end of the decade.

The plan is to produce the specifications for a hand-held satellite voice terminal that would be operated with a smart card and which would connect with ground based cellular systems.

A number of US groups have also outlined plans for satellite linked mobile services. Motorola (famous for their colourful pagers and for their Amiga chips) has gone further with the Iridium venture. The $3.4 billion project involves launching 66 satellites into low earth orbit. The first multiple launch is due in 1996 and the system is due to be in commercial operation by the end of 1998.

The system, according to Motorola, will be of cellular towers in orbit that talk to each other. Wow! They'll be tall enough to cover every square metre of the earth's surface. But they'll be low enough to provide high quality voice, data, paging, fax and position determination service to a cordless pocket-sized phone with no noticable delays in transmission. Wow again!

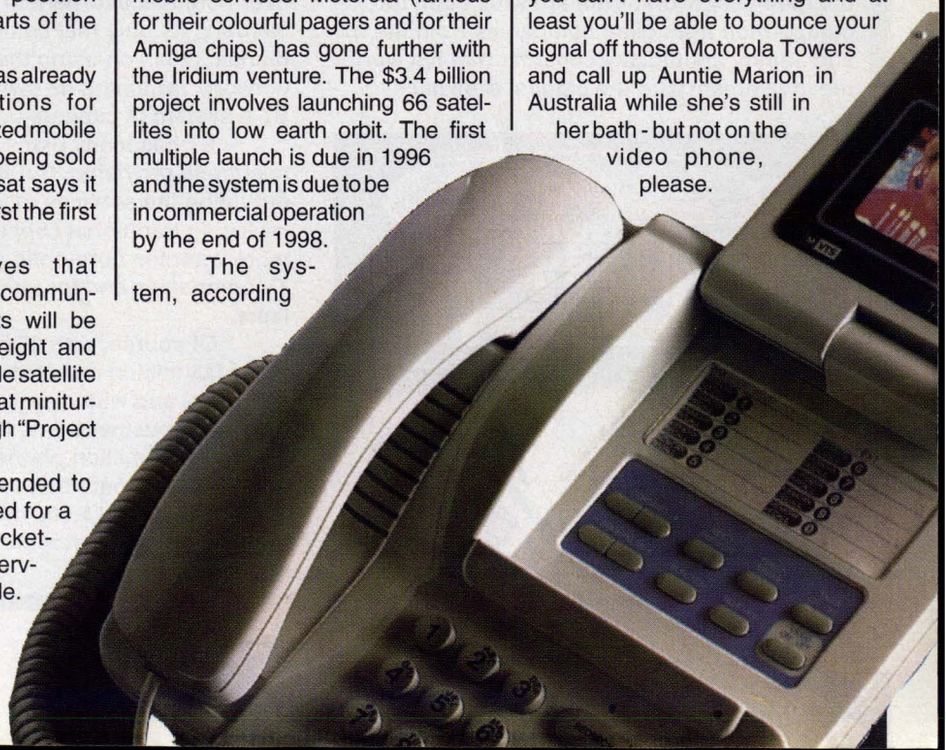
The launch price won't be cheap - estimates are that a phone terminal will cost about £1000, with calls charged at a around £1.30 a minute.

PCN

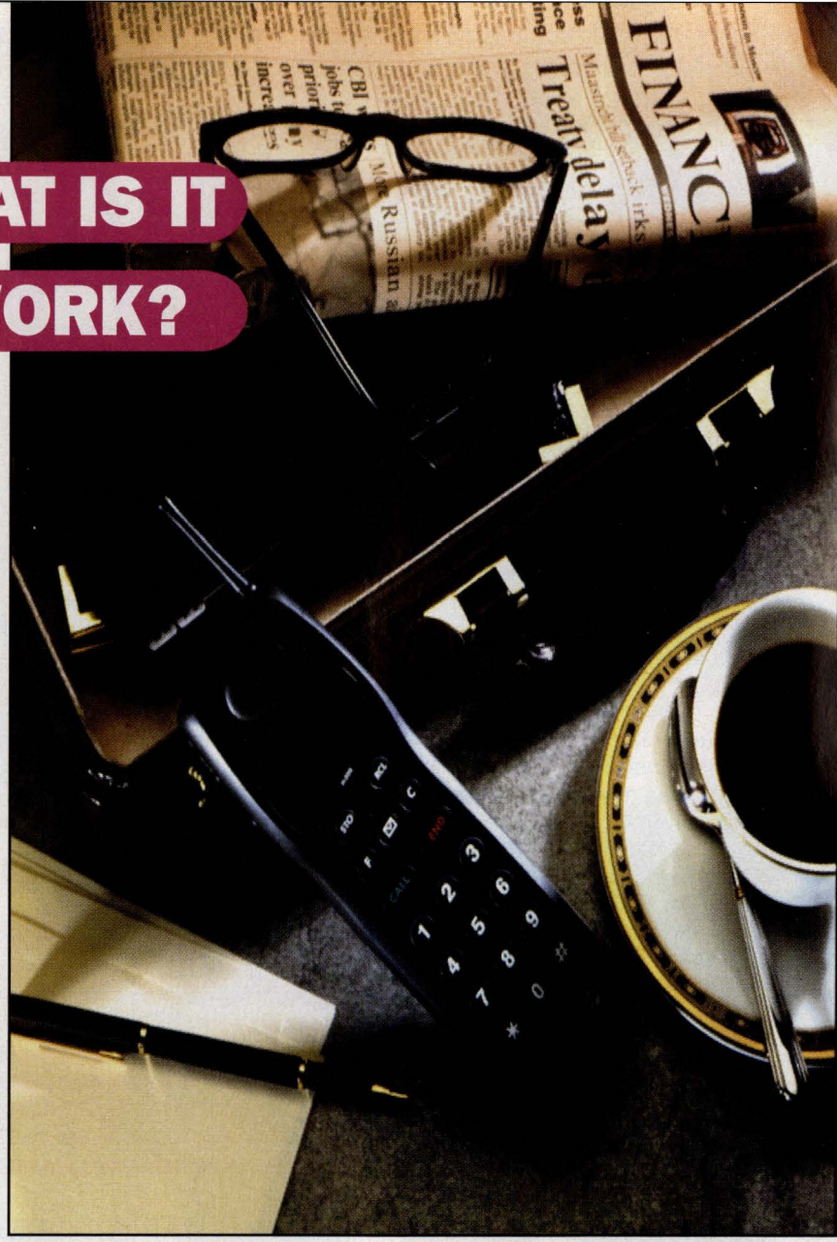
Personal Communication Networks (PCN) are being developed for people using mobile portable telephones rather than those telephoning from cars. Europe has adopted a common PCN standard, known as DCS 1800, based on the 1800 megahertz frequency. The system uses smaller cellular networks than analog or GSM systems and is better for person-to-person mobile communications. The frequency also allows for large scale use in what is expected to become a popular mobile system.

Down To Earth

The growing number of mobile possibilities means that anyone thinking about getting a mobile phone will need to look carefully at what they really need it for so that they can make the most economic choice. How much it is going to cost? That is likely to be the key question for most of us in the next ten years as the number of non-business users of mobile telecommunication systems overtakes professional users. By the end of the century, using a mobile phone will be as normal to us as making a call from a phone box is today. But you won't any longer be entertained while you do it by those cards offering exotic services from Voluptuous Victoria or Kinky Katie with which the phone boxes around here are now so well-equipped. Well, you can't have everything and at least you'll be able to bounce your signal off those Motorola Towers and call up Auntie Marion in Australia while she's still in her bath - but not on the video phone, please.



THE TELEPHONE - WHAT IS IT AND HOW DOES IT WORK?



Communication has never been more important, more simple or more efficient

The phone. The blower. The dog-and-bone. It's something which we all take for granted. If we want to shout abuse at our parents, or arrange a meeting with our friends, we reach for the phone. Radio's phone-in shows would just not be the same without one.

But how does the telephone work?

Ah. Got you with that one, didn't I?

It's all very simple really. You speak into a microphone (the mouthpiece of your phone) and the sound is converted into electrical or light pulses. These are sent down the copper or fibre-optic cables into your local exchange. Here, the signal is switched onto a main (or trunk) line, which then takes the signal to the nearest exchange to whoever you're talking with.

There, the whole process is reversed. The exchange switches the signal into the other person's phone and the signals are converted back into sounds in the telephone earpiece.

It's not quite as complicated as that because the switching part of the call is already dealt with by the time you're talking to whoever-it-is. The switches have already been made - maybe as many as a dozen - when you're 'ringing' the person's phone number.

Tone dialling is extremely fast, because it enables the switching to be done early. As you dial the code, the first few switches have already been made. Then the area part of the code is processed, allowing the next switches to be 'thrown' and, by the time you've finished the number, voila, you're connected.

How Fibre-optic Sound Is Carried

How does fibre-optic cabling work?

Light signals move many times faster than electrical pulses and so the signal comes through much more clearly at the other end than through copper cable. A microphone picks up the sound and it's converted, by a special form of laser, into light pulses. The signals these light pulses represent are in binary! Does every major priciple in our lives work by binary code?

At the receiving end, a photodiode changes the light pulses back into electrical signals. These are then decoded by an electrical decoder and passed into the speaker in the telephone earpiece.

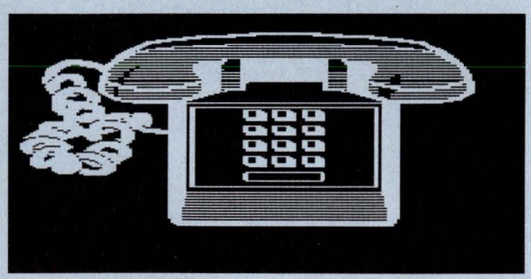
Satellite Calls

The other type of connection is via satellite. While it's about as space-age as the telephone service gets, that doesn't make international or mobile dialling any more complicated.

Again, the signal is broken down into its binary parts, but this time it's beamed up into the satellite

PHONE FACTS

The United Kingdom is in a relatively early stage of competition in the telephone market. We have two types of phone network: the traditional 'connected' network of wires and the mobile network. Both are wide open for competition from giant companies from the US and Japan, should any consider that it's worth the investment. But the biggest drawback to any potential network provider is the cost of laying literally millions of lines.



BT has 27 million lines in place in the UK, which gives it something of a head start over potential usurpers to its throne. Even Mercury, its only real competition in this market, relies on using the existing BT line network, switching its own customers through BT's system of cabling.

BT has many plans for the future of telephone provision. But its only real chance of providing the services of tomorrow lies in replacing traditional copper cables with the more versatile fibre-optic cables used by cable TV companies and for undersea communication links.

Of course, with 27 million lines in the UK alone (23 million residential and 4 million business) and with many extensions available from each business line, there could be as many as 100 million phones used in the UK each day. Compare that to the worldwide estimated total of 1,500 million phones and it looks as if we've got quite a slice of the world market here.

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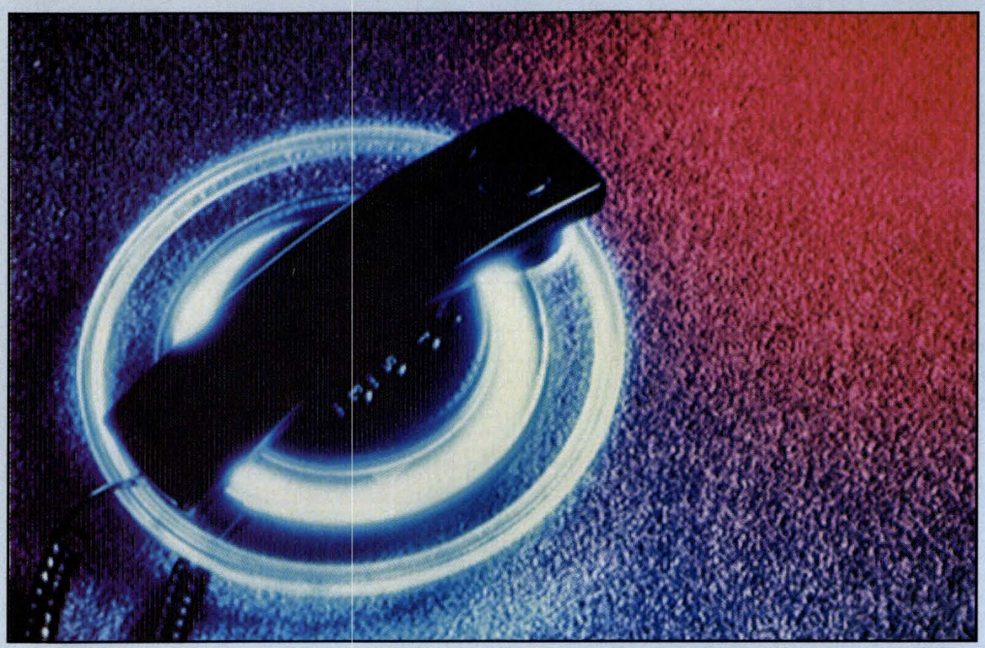
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PHONE FACTS



If you see God, tell him... that his angels should invest in neon halos

Copper or fibre-optic? BT's old network is copper, but it's already laid 1.5 million kilometres of fibre-optic cabling. If this isn't enough to convince you that fibre-optic is superior, then the fact that all of the UK's cable TV firms have opted to use it in their massive cable-laying operations of late should do.

BT's been disallowed from providing broadcast services so far due to worries that its size will prevent the competition from offering consumers a value-for-money alternative to BT. However, 2,500 homes in Colchester, Essex are being used as guinea-pigs for BT's new Video-on-Demand service, which gets around the rules because they say it's not really broadcasting. (Oh really?)

BT is testing the feasability of sending video signals down copper cabling, but it's unlikely that we'll hear anything of the great experiment until the second half of the year. If it's a success it will almost certainly pose a threat to Blockbuster Video et al.

But forget cable TV services; one of the most important parts of the cable package is cable telephone services.

The greater speed of fibre-optic transmission means that more information can be sent down the cables - and far more quickly than before. Soon, cable video telephony will be the norm and far cheaper than current video telephones, thanks to the fibre-optic's ability to carry sounds and high-quality images at, literally, the speed of light.

ring which orbits the Earth. From there, the beam is reflected down to a receiving point on Earth, where the classic conversion process takes place and the signal continues on its way.

Despite our accelerating technology, you'll still probably hear a delay on international calls. You go to say something when there's a gap in the conversation, when in fact there was no gap at all - the other person had paused for breath. Then you stop saying what it was you were saying, to appear polite, but by now the other person has heard your interruption and has stopped what they were saying. So you both start to talk at once again!

What causes this delay is a switch between satellites. If one is orbiting above the UK and another is above Australia, the UK satellite will need to send the signal around the world, which may involve several switches between satellites.

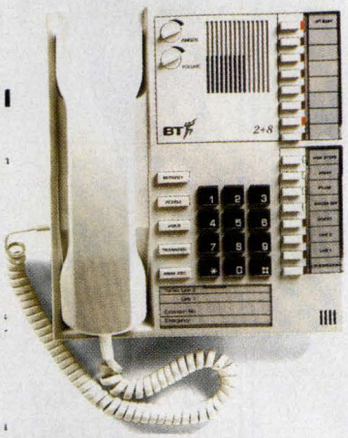
While that's a simplified version of events, it's what happens when you call a friend. So, if BT makes you believe that it's all hideously high-tech and complex, you'll know better now. Unless you're calling someone overseas. In which case you should phone BT or Mercury and thank them for being pretty damn efficient.

VARIETY IS THE SPICE OF LINES

PHONES YOU CAN RENT AND BUY

Time was when everyone had the same style of telephone. The index finger of busy people wore smooth around the top and 999 was a pain to call (especially if there were a fire downstairs). Now, though, there are literally thousands of different telephones, designed to cater for the special needs, fashions and other disabilities of today's society.

Business Systems



Small, expanding businesses could do worse than invest in a BT 2+8 system



One-man outfits or tiny companies go for the Renown

Today's business systems are as far removed from the old image of a woman, pulling out wires and making manual connections on a switchboard, as Saddam Hussein is from the ideal Nobel Peace Prize candidate. No matter how big or small your business is, there is a telephone system designed to cater for your needs.

BT's Renown, the smallest option available, links one incoming line to as many as five extensions, so all staff in a single office can pick up the phone if it's ringing. The imaginatively named 2+8 allows two incoming lines with (wait for it) up to eight extensions coming off of them. Useful if you're going to expand your business in the near future.

But what if you're already large and need a system which you can control? One of the diseconomies of scale is a lack of communication and control of your business. So why not treat your company to a Meridian



Spy on your employees, with BT's CM6000 series of call-logging systems

Norstar telephone system? Each extension can have messages left for absent workers, calls queued with a recorded voice asking the caller to be patient and prices starting at just over two grand.

All that and more is available on Mercury's business systems, like the 4100 VS and, if your company makes a lot more long-distance, rather than local calls, it will save a load of money by installing one. Lots of useful features, like Do Not Disturb (an extension), hunt groups - which allow colleagues to pick up a ringing extension - and call forwarding, which sends the call, if unanswered, to another extension or extensions.

Thanks to the CM6000 range, you can now spy on your staff! Yes, a simple box allows you to monitor outgoing and incoming calls, the average duration, total length of each call, the call type (for example, local, long-distance) and provides printouts for you to study. Without implying that bosses would want to watch for excessive personal calls (as if), this system could be used by a hotel to charge for calls from rooms, or by a sales company to ensure productivity is high enough. BT's CM6000 range begins at £1,525.00 plus VAT.

HOME TELEPHONES

There are more varieties of telephone available than there are miniature Eiffel Towers on sale in Paris. From BT's buy-or-rent standard issue range to novelty character phones, the range is bewildering.

We can't hope to cover them all but we can show you a cross-section of what's available. All prices are inclusive of VAT unless otherwise stated.



The Converse 300 looks dashing in BMW-style Alpine White. There are lots of features to help those with special needs

Converse 300

BT £7.99 per quarter/£69.99 to buy

This phone is particularly useful for those with special needs. There's an inductive coupler for use with hearing aids, very large buttons for arthritic hands and a large LCD readout for the partially-sighted to check their number dialled. The phone can be used hands-free too. Top marks to BT for this thoughtful model.

CT2000AT

Amstrad/Mercury £110.60 + VAT to buy only

Amstrad's cordless telephone not only comes with an intercom facility, which allows conversation between the user and another person at the base unit, there is also a fully-featured answerphone, including call monitor and memo message. The signal is digitally coded to improve the reception on the cordless unit.

Duet 100

BT £4.99 per quarter/£25.99 to buy

Ugh. Available in such genteel tones as Gentian Blue and Baltic Green (which look like those wishy-washy Plasticine colours), this phone is about as appealing as a wet fish with a curly cable attached. There's a fair few features, but not even a Paul Merton Hotline button could make this a desirable addition to your living room.



A depressing plastic brick, the Duet 100 is available in many Plasticine shades



The Freelance 300 incorporates some fascinating technology

Freelance 300

BT £109.00 to buy only

The Freelance 300 is a cordless phone which is packed with useful features. It's got an LCD display screen, a noise reducer to stop your neighbours listening in from their microwave ovens and an inductive coupler for the hard of hearing. An intercom switch allows the user to communicate with someone at the wall-mounted base unit and the user can switch between two channels to get the clearest signal possible.

Relate 300

BT £6.49 per quarter/$49.99 to buy

The Relate 300 isn't a direct connection to the relationship problems helpline, but its hands-free operation mode helpfully does allow you to carry out your suicide threat while you're talking to the Samaritans. There's a 20-number memory, LCD display and a clock, with a useful call timer to help estimate the cost of your calls. Available in the melancholic tones of Charcoal Grey or Alpine White.



The Relate 300 leaves both hands free. Very useful for when you're dialing adult porn lines...

Relate 2000

BT £399.00 to buy only

What! A £400 telephone? For that price, it had better come with a TV...

In fact, that's not too far off the mark. For the Relate 2000 comes complete with its own small video screen at the top of the unit. Now you can see your family, friends or heavy-breathing nuisance caller as well as talk to them. Telling lies over the phone is going to be ever more difficult.

PHONE FACTS

The Freelance 300 has two interesting ideas incorporated into its design. The first is a noise reduction device which helps to cut down the external radio interference - usually a whistling and fading of the signal - which often plagues cordless phones. The noise reducer works in a similar way to the Dolby noise reduction system found on recorded music tapesCDs etc. It emits radio waves, cancelling out the incoming waves which cause the feedback.

The second is also available on more standard telephones. It's an inductive coupler, designed for use with hearing aids. This is a loosely coupled transformer, coiled around a near-vertical solenoid in the telephone earpiece. When someone's hearing aid is switched to the T position, the solenoid stops the hearing aid from receiving any data other than the sounds emitted from the telephone earpiece, thus making the sound clearer and easier to hear. About 25% of the population suffer some hearing problems and 75% of people over 65 have partial or major hearing loss, so phones of this kind of facility can appeal to a large number of users.

Sorry, I'm in the bath..

Currently, video phone technology is limited in its application. You won't see your loved ones move in real time, a TV signal updates at 25 frames per second, the video phone will work at more like a maximum of eight frames per second. If you move around, your image will update at the other end more slowly, because of the increased number of data changes. The cost of the unit will probably put many people off of the idea, coupled with the fact that it won't work unless the other person has a similar unit too. And, how many people would want to be seen first thing in the morning anyway?

You can, of course, switch off the video phone option, but that seems to defeat the object! This type of phone is before its time. As with the Amiga, VHS recorder and any other popular consumer electronics items, only when the price falls far enough will the video phone become popular and common. But this will happen in time.

The Relate 2000, which uses the standard PSDN networks and has a bandwidth of 14.4 kilobits, is not compatible with business video conferencing systems, which commonly use ISDN lines, operating on a much wider bandwidth of 2 megabits. Additionally, its coding standard is different to ISDN videophones, because the PSDN network cannot carry as much information.



Videophones are at last a reality. Now you can't answer the phone to your husband while you're boffing the postman

PHONE FACTS

ISDN - or Integrated Services Digital Network - is the network of tomorrow, at least as far as BT is concerned. The current standard PSDN (Public Service Data Network) limits what data can be sent down the line. In fact, ISDN's big advantage is the speed of transfer. For example, using an ISDN 2 or ISDN 30 channel with BT's CF2000 fax machine, an A4 page of information can be transmitted in just three seconds.

ISDN 2 is a two-channel network. One connection is split into two, so, in theory, you could have a fax machine and ISDN voice line from the same connection. This can run through the standard copper cabling. ISDN 30 starts from 15 channels and you can have as many as 30. This higher level of ISDN only works with fibre-optic cabling. Of course, cable telephone systems already use fibre-optic connections...

Roxanne

Cicena £59.95 to buy only

For anyone seeking something a little different to plug into their telephone socket, have a look at this



Roxanne... you don't have to put on the blue light...

little babe. Roxanne's the name and looking exceedingly cool is her sole purpose in life. With neon's resurgence as a fashionable accessory in minimalist apartments and homes and a choice of seven neon shades, Roxanne will look at home next to the suede chez lounges - and she's named after one of the Police's greatest ever singles or more likely, Cyrano de Bergerac's nose, sorry, girl friend.. Isn't she gorgeous?

Savoy

Cicena £29.99, to buy only

The Savoy is a step back through time. Relive the great telephone conversations of Hollywood's greats, like Cary Grant or Ingrid Bergman, with this stylish imitation of the old dog-and-bone. Available in the authentic tones of cream or black or, for today's colour co-ordinated homes, Bordeux red or forest green as well.



The Savoy is a time machine in telephone form

Shiela

Cicena £45.00, to buy only

If you ever feel like dropping a line to God, you could do no better than the Shiela. In fact, when its receiver is on the circular stand, a neon halo glows brightly. Heavenly. A pity about the brash name, which seems more at home in Brookside Close or Crocodile Dundee than real life.

JUST THE FAX!

WHEN THE POST ISN'T QUICK ENOUGH

When Sir Rowland Hill invented the standard Penny Post rate back in 1840, it must have seemed as incredible an idea as the first telephone, the first home computer and, slightly more relevantly, the first fax machine have done to subsequent generations.

Fax machines are now as accepted a part of the office furniture as the coffee machine and the desk chair. Their usefulness has never been in question; why post someone a note when it could be there in moments by facsimilie? Yet the fax machine has not gained a large foothold in the domestic market,

→

Tel 4M

Audioline £16.00 + VAT to buy only

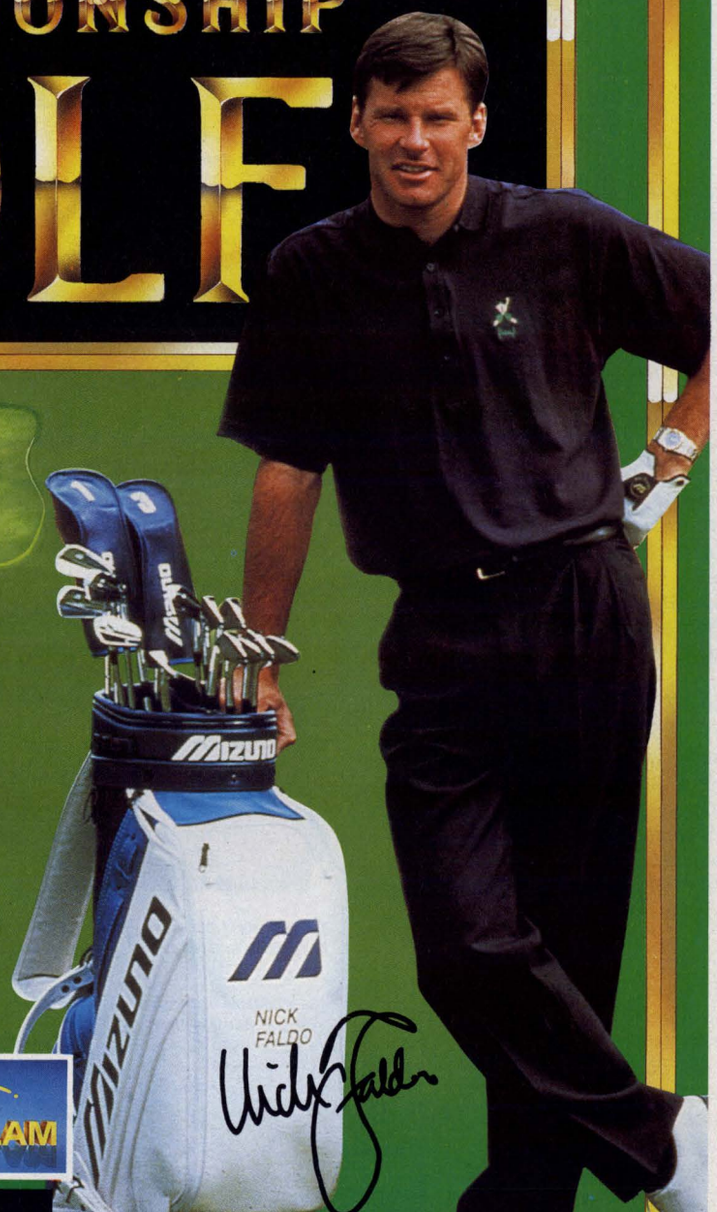
Well, if BT's Duet 100 is available in a gross pastel range of colours, then they're positively jolly compared to the Audioline/Mercury's charcoal grey or white options. Otherwise, it's just another 'plastic brick' telephone, but this time with a Mercury button. Wow.



What's more depressing than a pastel-shaded plastic brick? The grey or black Audioline Tel 4M, complete with Mercury button

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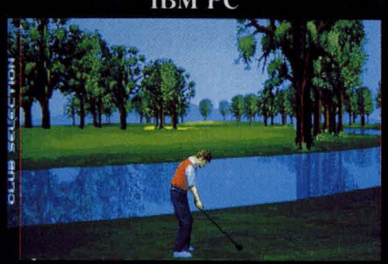
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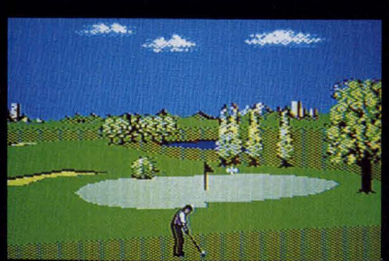
88% AMIGA ACTION

IBM PC

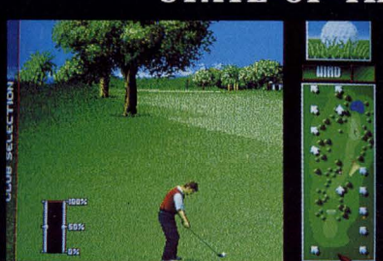


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A PHONEY WORLD?



BT's answer to the budget fax problem is the CF55. To buy or rent, it's one of the cheapest around

mainly due to the cost of purchasing one putting off the home user.

Us computer literates know all about fax modems, but it's not the same as having a real fax machine. There's no copier facility on a fax modem and it's not as simple as scribbling a rough map of your neighbourhood and whacking it off in the fax.

But, thanks to the evolving tele-commuter market, with many companies saving huge sums of money and increasing prod-uctivity by using home workers, companies such as BT and Amstrad have had to make machines like the fax cheaper and easier to use.

That's where the BT CF55 comes in. The CF55 is small, has a copier facility and costs just £316.20 inclusive of VAT. Those businessmen and women who prefer the convenience of renting one can do so for just £55.00 per quarter, plus VAT. Useful if you're just starting out and don't want a lot of up-front costs.

Mercury can beat that price - and save you money when faxing long distance - with the Amstrad FX7000. It's complete with a Mercury button and has all of the features of the CF55, with a slightly lower asking price of £299.99 to boot. There's no rental option available, though.

BT's other noteworthy fax is the CF2000. It's as far as fax machines have yet gone. It needs the ISDN link described earlier, but once you've spent two grand on that and SIX grand on the CF2000, you should expect a list of features which would put a Toyota Supra to shame... including 3-second A4 faxing, laser printer and copier capabilities on plain paper, 64 grey scale transmission of photographs and a networking option for use with more than one computer. I want one.

There are, of course, plenty of othher manufacturers in the fax game to check out before you acquire a machine. Panasonic, Canonb Oki, virtually all the big japanese names except maybe Toyota - though come to think of it they maight be there too - they do make sewing machines too...



The ultimate in ISDN faxing is BT's CF2000. A4 to Australia in three seconds? Consider it done



An affordable fax machine for the home? Ask Amstrad about its FX7000

BT VS MERCURY VS...?

When you think of the telephone, your mind will probably grab BT (or British Telecom, as most people still think of it), then by degrees switch to Mercury (which, if you believe the Mercury propaganda, is exactly what BT customers are doing in their thousands).



Mercury unleashes its secret weapon in the war against the mobile world: Beatrice Dalle, owner of the best pair of hands on TV

But by the year 2000, you may not have things so easy. Legislation has opened up the telephone market to competition in the last few years and the Cable & Wireless-owned Mercury is just the first player on this new game. None of the big US corporations has made a solid move into the UK market yet, though rumours have long been rife of such a step being planned. However, BT and Mercury should look first to the mushrooming cable TV companies for their most current threat.

Companies such as Westminster Cable, Cable London and Telessential have been providing an alternative telephone service for some time now. The companies have only local franchises and so would have to combine in some way to achieve national coverage. But look out of your window. See any workmen? My area, Hertfordshire, has already been ripped apart to make way for the fibre-optic cable TV network and the rest of the country is going the same way.

PHONE FACTS

Well, more of a cable fact, really. The US teleshopping company Quality Value Choice (QVC) is a name you'll be hearing more of in the years to come. Its programmes are already available on UK cable TV, but the main reason we mention the company is that it's a wonderful illustration of the money that's going to be made in cable TV over the next decade or two.

QVC was recently involved in fighting to buy an American cable TV group for (wait for it) $11 BILLION. Won the pools recently? That measly £2 million wouldn't make up 35% of the value of that hostile stock market bid. And they don't get much more hostile than that. Would QVC be spending that sort of money if the company didn't expect to get it all back, with interest? Nope. So there you are.

Cable's coming. And it's far bigger and more scarey than any Stephen King monster.

The Price of Choice

What you really want to know is: will all of this competition actually save me any money?

The answer is pretty difficult to give conclusively, because the answer largely depends on your level and type of usage. Telephone charges are split up into three charge bands, peak, standard and cheap rate and three distance bands, local, National A-rate and National B-rate.

So, currently it's difficult to make a judgement. It rather depends on the deals offered by the cable TV companies. Mercury seems a better bet if you're making long-distance calls, while BT walks all over them for local rates. "It's a fact we're not worried about admitting," said a Mercury spokeswoman. "We can't compete with BT locally and so we don't try to. Where we come into our own is for users dialling long-distance regularly. I believe that our mobile One2One service will mop up a lot of the local call charges anyway."

The threat from cable cannot be ignored. Here, no prices are yet available but just the lure of free local calls between cable customers must be very strong indeed. Plus, the fact that cable uses fibre-optic connections means that it will be very clear and fast, so extremely useful if you were using a modem, for instance.

It seems that the skirmishes we've seen so far in the telephone market have been just the posturing before the bout begins. And, if you've ever seen Sumo wrestling, you'll know what it means when we say that, impressive though it is, the posturing is nothing compared to the real fight to follow.

TABLE A

COMPARATIVE CALL RATES, BT, MERCURY, CABLE[a]

CALL TYPE	BT P/MIN	MERCURY P/MIN	CABLE P/MIN
Peak local	6.67	9.70 bus/res	TBA
Standard local	5.00	7.40 bus/res	TBA
Cheap local	1.67	2.45 bus/res	Free (superscript)[b]
Peak A-rate	11.67	9.09bus/8.40res	TBA (superscript)[c]
Standard A-rate	8.34	6.95bus/6.20res	TBA (superscript)[c]
Cheap A-rate	5.00	2.91bus/2.40res	TBA (superscript)[c]
Peak B-rate	16.67	12.28bus/11.80res	TBA (superscript)[c]
Standard B-rate	13.34	9.21bus/8.80res	TBA (superscript)[c]
Cheap B-rate	8.34	5.36bus/5.30res	TBA (superscript)[c]

On top of your BT line rental, Mercury charges a single annual fee of £10.00 plus VAT for its services. So-called A1 and B1 rates, for National calls to major cities, are slightly cheaper across the board.

a) Prices quoted for Telessential: Check your local cable TV company for deals

b) From one Telessential customer to another in local area. Offer applies if you subscribe to cable TV and telephone services: check with your cable TV company for limit to your local area

c) Currently unavailable, but possibly identical to Mercury rates, as Mercury will be the most likely carrier for non-local Telessential calls

"It's a fact we don't mind admitting. We can't compete with BT locally and so we don't try to."
Mercury spokeswoman

DON'T JUST STAY IN TOUCH

EXTRA SERVICES

Your telephone or fax machine can do a whole lot more than keep you updated on the local gossip or get you new business. The telephone companies want you to keep using their networks, so they have devised many new ways for you to run your quarterly bill up.

But there's no need to be suspicious of these 'value added' services. While the telephone companies continue to make lots of profits, the standard telephone conversation is seemingly becoming more competitively priced every day. The likes of BT and Mercury have had to create new sources of income to keep the cashflow up in the increasingly tight years to come. However, many of these services are genuinely useful.

The problem is getting people to be aware of the services and then convincing them that they're worth using. In order to aid you in making that decision (and to aid the companies in their public awareness exercises), a guide to the most interesting and useful services available follows, with contact telephone numbers in case you're interested in getting more details.

Digital Network services

According to BT, approximately 85% of its local networks have been converted to digital systems. One good way of telling if yours has been converted is whether you can use a new-style tone dialling phone. These make bleeping noises in musical tones, rather than the old 'clicking' which phones such as the traditional circular dial ones used to. Having dialled someone's number, the connection should be made almost instantly.

One final clue, if you haven't updated your phone to a tone one is if your local telephone numbers have had an extra digit added in the last few years (for instance, in Watford an extra 2 was put in front of every five-figure telephone number in 1991). If you're still unsure, dial BT's residential enquiries on 150. Mercury customers won't be able to do this, as BT numbers are blanked out locally, so dial 0800 800 150 instead.



The benefits of a digital exchange are greater than instant connection to your destination number. You can request itemised billing from BT for the nominal cost of £5.00 per quarter (call residential enquiries on 150 or business enquiries on 152 to convert to itemised billing) plus VAT; Mercury customers get itemised bills automatically.

A list of all calls above a certain number of units (which usually works out to 50p or more) is printed, along with the destination telephone number. So now you can catch out your eldest son's calls to those adult chatlines, without lurking at the bottom of the stairs in a dressing gown.

Many people have an answerphone these days, to catch the calls that they'd otherwise miss while they're out, but what about the calls they miss when they're in and on the phone to someone? I generally give someone a couple of chances when calling them before giving up in annoyance at the 'engaged' tone. But digital network customers don't need to put up with this and nor do their callers.

The Call Waiting service tells the new caller that you're on a call and asks them to wait. Then you're alerted by a bleep and now have the choice of putting the current caller on hold, while switching to the new call, or leaving the new caller in the queue. How useful this service is depends on your social life, but it could save lives in a theoretical emergency.

Call Diversion is another great service. Simply type a code into the phone, followed by the number of the

PHONE FACTS

If you're being pestered by a malicious caller - a sexy voiced girl inviting you to some extraordinary excitements? You should be so lucky! - never fear. BT's apparently spending £10 million on the problem every year and there are courses of action which may be followed by anyone who's suffering at the hands of perverts, maniacs or just double-glazing salesmen.

There's a free 24-hour advice line on 0800 666 700, which plays a recorded message giving advice on what to do for the best; dialling 150 (or 0800 800 150 for Mercury customers) will let you get personal advice; and if you need to make an actual complaint, call the Nuisance Call Bureau on 0800 661 441.

Don't let them get away with it.

phone where you're going to be. The digital network will intercept the call and divert it to the number you've specified. This service carries on for as long as you leave the code 'armed,' whether that is half an hour or half a year.

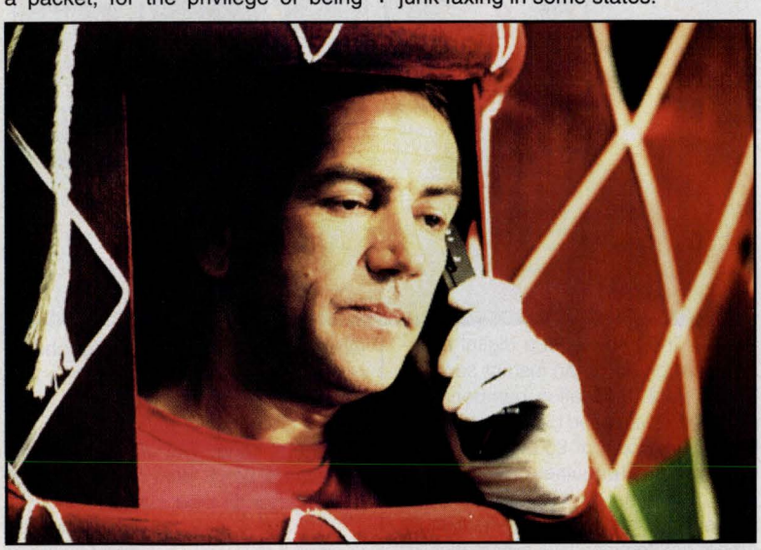
Charge Advice costs 6p every time you use it, but is handy if you want to know exactly how much your call has cost you. While on the call, you just input a code and then an operator calls you once the call ends, to tell you how much the call cost you. This could be very handy if you were a consultant, charging your calls to a company in advance of your phone bill arriving.

You can even turn your telephone into a 24-hour alarm clock! Gone are the days when an operator had to book your time and charge you a packet, for the privilege of being woken up to drive to the airport. Now you can book it yourself without talking to an artificially cheerful person on the other end of the phone. This costs just 12p, compared to the old 'human' price of about £1.50.

Value-added Fax Service

FeatureFax frees your precious time from the trouble of faxing a document to several destinations. For £5.00 per month you can send your fax to the FeatureFax HQ, where it will be sent for you to a list of fax numbers which you specify. It will even try an engaged number 15 times before getting annoyed and going off to make a cuppa. This service also leaves your fax line free to receive incoming fax messages...

Such as junk faxes. These became an epedemic in America, where hardly an hour would go by without an unwanted fax spooling through the paper on a company's machine. Not only did this tie up the machines and prevent important faxes from being transmitted, but it also used up all of the paper, leading to bans on junk faxing in some states.



If you're not switched on to the Mercury One2One network, you're a silly sausage.

Showing Them The Card

Most people carry far too many cards as it is, from Kidney Donor to Blockbuster Video and Visa. But the telephone companies would have us carry even more plastic about with us, so we can get the best from the telephone no matter where we are. The most obvious way this has happened is in the PhoneCard.

Mercury cards remove their value penny by penny. So, just like Mercury's standard phone charges, you only pay for what you use. A unit on a BT Phonecard is removed as the old one expires, just like inserting 10p more into a payphone.

But what if you need to borrow someone's phone to make a long-distance call? Gone are the days when you needed to drop 50p into a wooden box by the telephone stand - now, you can carry your own BT Chargecard everywhere you go. A Chargecard is free, with the cost of the call being assigned to the telephone account of your home or business. This is charged at the higher rate associated with a public call box. But the flexibility to use almost any phone, from home or abroad in 120 countries, more than makes up for the extra costs incurred.

PHONE FACTS

BT's Phonecards were the first to appear and the early ones are now collector's items. Not at all surprising - in fact, these cards were very crude and the system involved a physical change to a card as it was used - a system which could be cheated on by coating the 'unit strip' on the card with clear nail varnish.

Things have improved since the 'scratch out' days of the first Phonecards. The number of units are now stored on the cards in the form of holograms, embedded in the card. As the units are used up, a laser deletes the holograms. And it's clear nail varnish-proof too, alas.

Online

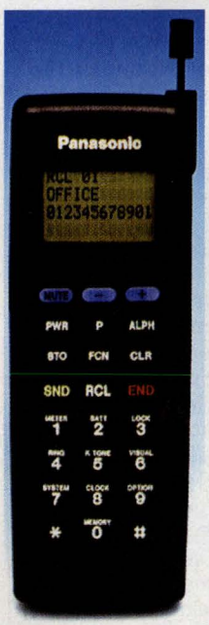
Once known as Telecom Gold, BT's Business Information Services is a system which no company should be without. The signup cost of £100.00 is pretty reasonable alone, without BT's occasional offers, such as free training, thrown in. Once you're a subscriber, a number of valuable services are accessible via your computer and a modem.

They range from Electronic Yellow Pages, for when you need to contact someone in a hurry (remember that there are over 60 books in the Yellow Pages and you can conduct a search in any part of the country), which are free, to more costly services like company accounts searches from Dun and Bradstreet and an instantly-updated stockmarket watch called CitiWatch. Some of the services are charged per minute, while others cost a set amount per transaction.



This Sony phone is nicknamed the Mars Bar. It's the same size and shape, but it doesn't melt when you're striking a hot deal with it

Smart and competant, the Panasonic I Series keeps your finger on the pulse



Larger companies often need to transfer important or politically delicate information around the organisation. In some cases, many different managers will need a copy of the same document - and every copy will need to be kept confidential. Another BT service, BT Messaging Services, offers the facility to do just that.

It's password protected, to ensure that only the right people get to see the information. A number of interesting options allow the multiple sending of a single message, the request of an automatic answer or acknowledgement of the target user reading the file. Other options allow faxing or telexing of files or a general message to all networked employees. In this way, a messaging system can become a form of company grapevine as well as a means for the instant transfer of information.

Call BT on 0800 200 700 for more details of either BT Messaging or Business Information Services.

Online services are not just business-orientated, although most now concentrate solely on this lucrative area. BT once hosted Micronet, the

online computer magazine, on its now-condemned Prestel network, due to leave its control in April this year. Users could dial in at local rates and read articles, chat to other users and even manage their own small areas of the system. Micronet closed down in October 1991, but for the time being at least, other services on Prestel may be of interest to some residential users.

Anyone who watches the stockmarket will love BT CitiService, which updates share and stock prices, indicies such as the FTSE-100 and even options prices, in real time. This doesn't come cheap, at £25.00 per quarter and 39p per minute, but active traders will find its information pays for itself more often than not. Other parts of Prestel may also be useful: free directory enquiries on Phonebase, the 24-hour ticket booking service First Call, or the Electronic Yellow Pages could prove invaluable. For more information on Prestel, call BT on 0800 200 700.

Although Prestel's days are now numbered, at least as far as BT's control is concerned, there is an independant service called The Silicon Village, run by New Media Services in Hertford. Chatlines, magazines and competitions abound, along with a multi-user adventure game and downloadable PD software. Most people can access the magazine at local call rates. A subscription costs £120 per year for direct access to London or Reading, or 2.5p per minute for access to anyone else - plus the dreaded VAT. Contact Silicon Village on 0992 586919.

Special Prefix Numbers

Sometimes you'll see advertisements for companies with odd-looking code numbers: 0800, 0500, 0898, 0345, 0891... What do they mean?

0800 numbers are BT FreeFone numbers, while 0500 are Mercury FreeCall lines. All of the costs incurred during the telephone conversation are passed on to the business or owner of the 0800 number. Having worked as a FreeFone sales exec, I can speak from firsthand experience when I say that this system is open to abuse! Often, people dial a random 0800 number, then hurl a string of insults at the operator. And FreeFone wrong numbers occur just as frequently as any other: the difference is, it doesn't cost the caller anything but time.

0345 is a similar type of number, although not all of the costs are passed onto the operator of the line. You pay a local call charge when dialling an 0345 number, which varies depending on when you call. The business collects the tab for the balance.

0898 traditionally, but, thanks to the explosion of the services, also 0891, 0338, 0336, 08364, 0839 and 0881, numbers are so-called Premium Rate numbers. Adverts carrying these prefix codes should also include a warning about the cost of using the numbers. Calls to Premium Rate lines cost 36p per minute during cheap rate and 48p at all other times (currently), so the cost of each call can be immense. Some adverts carry a warning about the length of a call, which can be as much as 8-10 minutes. Use them with great care and be careful to hang the phone up correctly afterwards!

THEY DON'T ALWAYS GET IT RIGHT

Prestel began back in the mid-70s when BT was still a part of the Post Office. The P.O. in their wisdom tried to sell special receivers like bulky TV sets on which to receive the service.

They also made a charge for use and you paid the phone bill on top. No wonder the public even the business public was reluctant to get in on it.

Some specialist areas like the travel business took it and still make good use of it through a "gateway' into their own online computer services using Prestel as a relatively cheap networking facility.

Other countries took a different view. The Germans, for example, actually based their original system on British technology but concentrated on big mail order companies who liked the idea of teleshopping. The French, who have been the most successful, decided that the receivers were the problem and simply made them smaller and, taking a longer term view, gave them away. There are more than 12 million Hinitel terminals in use in France today and as a bonus, their are no more unwieldy phone books - or expensive directory enquiry calls - so think of all the trees they save and the energy wasted in making the books for the UK.

The system in France does have a reputation for containing lots of sex stuff on it but that may be one of the reasons that it is also said to have made the French much more communications aware than the British. Whatever the reasons, their system is still going strong while ours is being closed down. Is there is lesson there for somebody to learn?

Cut Your Telephone Bills

BT is a nice company after all, you know. Not content with cutting the cost of long-distance calls at weekends, now it's offering you some of your money back, thanks to Customer Options.

If your business' quarterly charges are typically above £100.00 per quarter, any charges attached to that line are discounted by 12.4% for the first £200.00 of each quarter and 15% above that level. The cost of this Option is just £6.20 per quarter. In theory, the break-even point for this investment is just a £50.00 bill per quarter.

Mercury also offers a reduced-rate call plan. Its "daytime calling plan" will reduce your non-cheap rate calls by 5% per quarter. This costs a Mercury customer £3.00 plus VAT per quarter.

The Future's Orange?

You may have seen the advertising campaign for the latest contender for your mobile cash. "Talk" "Whisper" "Cry" etc in trendy orange on black. After the failure of their Rabbit phones, Hutchison Telecom is trying again. Their new network of Orange phones is receiving a huge advertising campaign in both the press and the television.

They are hoping to succeed where they failed before by offering more competitive services, such as their claim to replace most stolen phones within two hours. A monthly charge will give some free air time, to give the consumer the knowledge they are not shelling out a monthly fee for nothing. In addition, they provide an answerphone, call diversion, hold and barring and other services that they see as giving them the edge.

At present the service area is for only 50% of the country though, increasing, they say, to 90% during the next year. With other companies offering up to 98% coverage, this may be their weak spot. However, for the average punter within the call area, Orange may be the step which will help the spread of mobiles from the business man only or simply expensive toy idea to the affordable answer to keep everyone in contact.

PHONE FACTS

ICSTIS

(Or The Independant Committee for the Supervision of Standards of Telephone Information Services, for short) is the watchdog for Premium Rate telephone lines. Its role, among other things is to investigate complaints and administer a compensation scheme to settle claims of unauthorised use."

One of its main tasks is to protect the individual - "Services must not be of a kind that are likely to: a) Result in any unreasonable invasion of privacy; b) Induce an unacceptable sense of fear or anxiety; c) Encourage or incite any person to engage in dangerous practices or to use harmful substances; or d) Induce or promote racial disharmony."

If you have any problems with companies offering Premium Rate numbers, contact them on 0800 500 212 - and by now you should know that it will be a free call.

It seems that computer-using individuals are as much at risk as any other group. A company advertising computer porn was asked to withdraw the service, when the police brought the nature of the downloadable material to ICSTIS' attention. The company agreed that it had breached two of ICSTIS' codes of practice; using a non-adult prefix for adult material and offering adult services on a premium-rate bulletin board. ICSTIS has encountered a second, similar case recently and successfully asked another company to remove its premium-rate computer porn service.

THE MOBILE MINEFIELD

THE EQUIPMENT, THE CATCHES AND THE COSTS

More and more people are getting mobile, thanks largely to the rapidly lowering costs involved and the increased range of choice available to the consumer. The mobile phone is not now an exclusive toy of the stripey-shirt and braces brigade, seen on the tables of good restaurants in the company of a Filofax. You're far more likely to see one in the hands of a plumber, an office worker or a bus driver.

The problem is, with the increase in choice and variety, it's very hard to decide which mobile phone is for you and which of the three main networks - Vodaphone, Cellnet or Mercury One2One - is the most suitable for your mobile telephone needs. Dozens of offers, contracts and deals are available. Much depends on your projected level of use and when you're going to use it. What are Business Tariffs, Off-Peak Rates - and how 'free' is the Mercury off-peak option?

Networks

If you're considering a mobile phone, there is more to buying one than meets the eye. The cost of the phone is often a minor consideration, compared to the cost of the monthly rental and possibly also a connection fee.

There are three networks to which you can be connected. They are Vodafone, Cellnet and Mercury One2One. Cellnet and Vodafone are both fighting for a bite of the same cherry, so their rates are very similar. However, in some areas, one may have a slightly better coverage than the other, so it's worth checking with the supplier of your mobile before connecting to a network. Both claim about 98% of UK coverage, a figure which one industry source said was "probably very optimistic, in terms of actual land mass, but reasonable in terms of demand for mobile phones."

Mercury's option is too new to have attracted 'flattering' imitators and the prices are higher to reflect this. A Mercury One2One phone starts at the £250 Siemens m200, but the initial connection cost of £20 looks attractive. The £20 per month business rental charge (£12.50 for personal rental) is reasonable and the call rates are fairly special, too.

Peak rate calls cost 16p business and 25p personal. However, it's those off-peak rates which are so tempting. 8p or 10p for National calls and free local calls for personal users. Business users pay 8p for those as well. Business callers phoning someone with another One2One phone pay 8p all day. One2One peak hours are 7am-7pm, which gives a theoretical 12 hours of free gossipmongering per day.

"Free off-peak local calls gets the message across that the One2One is an everyday phone that our customers can use in managing their day-to-day lives," said Mercury One2One MD Richard Goswell. His dream for the product is that it will stop mobile phones from being seen as elitist and something that's to be used in emergencies only.

At the moment, local calls cover 071 to 081 or vice-versa, but the network is very new and expanding all the while. Home counties are next and it remains to be seen where 'local' lines will be drawn for the free off-peak and weekend calls deal.

The Charges

Mobile phone charges vary enormously. The trouble is, not only are there four basic tariff rates (Business, Consumer, City and European), depending on where you buy the phone and who you sign a contract with, there may be large savings made (or missed). If you've seen small ads in the paper, you'll know that there are companies offering as much as £300 for your old mobile phone. Why? Because the network tariff contracts can earn the dealer much more than the phone.

Some equipment manufacturers sell wholesale phones at very low rates, but pocket the whole wedge of network charges. Others pass the dealer the problem of selling the phone at its true value, while also letting him receive a fair portion of the network fee. Would you be shocked if we told you that dealers can get a mobile phone for as little as £13, to sell on with a contract? No? What if we told you that larger dealers can get them for nothing?



To be in touch while you're out of touch - get mobile!

Have a look at the difference in Cellnet tariff rates from one high street vendor, Hutchison Telecom. (Figure B)

The first figure for peak rates, where applicable, is for inside the M25, the second for outside it.

So, if your choice of mobile phone from Hutchison Telecom is £199.99, add the connection fee, multiply the monthly rental by 12 and that's what it's costing you in the first year BEFORE you make a single call.

Or is it? In fact, most mobile telephones have a special offer attached. At Hutchison, the Nokia 101, which had a normal price tag of £199.99, was just £99.99 if you agreed to sign up for a business tariff - and the company would waive the connection cost (in this case, £60).

Which sounds fine, until you realise that Hutchison's commission would be worth as much as £400 for that contract. So it's well worth the company's while to discount the equipment. The reason for this huge commission is that the minimum length of a contract is normally between 12 and 24 months. Gulp.

There's no hard-and-fast answer to the question, "How much will buying a mobile phone cost me?" I'm afraid. The fact is, there are new offers coming onto the market every day. Shop around for the phone of your choice and don't be afraid to contact the telephone's manufacturer directly; they may be able to give you a better price than the high street shops can.

PHONE FACTS

It's estimated that, by the end of the century, 25% of the population of the developed world will carry a mobile phone - and, possibly somewhat later, that everyone will be assigned their own mobile telephone number at birth. With mobile phones being increasingly usable with base units in the home, most mobile phones will double up as an everyday handset. Imagine not having to memorise a new one each time you change telephones or address...

Six of the Best

No, this isn't one of those phone box advertisements. Even more than with

TABLE A

Tariff rates for mobile connections to Cellnet from Hutchison Telecom's Orange compared to Mercury One2one

	TARIFF TYPE	CONNECTION FEE	MONTHLY RENTAL	PEAK P/MIN	OFF-PEAK P/MIN
ORANGE	Talk 15	£30.00	£15.00	25p	12.5p
	Talk 60	£30.00	£25.00	20p	10p
	Talk 200	£30.00	£50.00	18p	9p
	Talk 360	£30.00	£75.00	16p	8p
	Talk 540	£30.00	£100.00	14p	7p
MERCURY	One2One	£20.00	£20.00/£12.00	16p/25p	8p/FREE

standard phones, the mobile market has exploded in recent years and now there are dozens of models available. We can't hope to cover them all for you here, but this half-dozen comprise some of the cheapest, the best-equipped and the most technologically advanced (though sadly, probably not all at once).

NOKIA 101

This phone is one of the cheapest available. The Carphone Warehouse (0800 424800) has a deal for £99 and no connection fee (which, incidentally, is normally £50 from this vendor). That effectively gives you a phone for £50 plus the cost of the business tariff. It's not packed with features, as you'd imagine, but it's small and reasonably light, at 280g. It's a rather uninspiring design, rounded and coloured like a communicator from a 60s science fiction film.

SIEMENS m200

The m200, like all One2One phones, comes with a SmartCard. This holds personal details, including up to 99 phone numbers and a PIN number and helps to prevent unauthorised use of the phone. It also scrambles the signal to prevent reporters recording your conversations and publishing them later. Pressing any key allows you to answer calls, so you don't have to grope around in the dark with your Zippo lighter dangerously close to the keypad. Otherwise, it's much the same as any other mobile phone and at £249.99, it's a relatively cheap way into the One2One network.

SONY CM-H333

This is nicknamed the Mars Bar, because it's about the size of a Kingsize choccy bar. Three commonly-used numbers can be called at a single button press and a charge indicator lets you know how soon you'll be running out of your 24-hour standby charge. Again, you can have a Mars Bar phone for just £99 from the Carphone Warehouse.

PEOPLES PHONES?

Peoples Phones (as opposed to dogs' or cats' phones?) is a new chain of outlets that's spreading across the country. They offer a "charter" to attract everyone.

Their "charter" (Another Charter? John Major has a lot to answer for!) states that they won't sell you a phone unless it's right for you (that's nice of them), that they offer competitive pricing, that their airtime prices won't increase and have no hidden penalties. It's the "We're really really nice people who are here to help you and not simply to make a huge profit" approach. Of course, if they do end up making stacks of cash, they won't complain.

They offer a large range of handheld and mobile phones, with their tariffs ranging from the 85p/min emergency tariff to the 8p/min (off-peak) for high-end users.

With a good selection of options and good coverage, Peoples offer an attractive package. It's also good that you can walk into a high street branch and get clued up. What a change, phones being sold like groceries...

PHONE FACTS

People buying second-hand mobile phones to sell on can do so because some mobile phones have a split personality. That doesn't mean they will start talking in multiple voices during a call - what it does mean is that the phone has two identity numbers. One is associated with the telephone number, while the other is the telephone's identity code. These are held on EPROMs inside the phone.

Using an EPROM 'blower', these identity numbers can be reprogrammed. While this isn't strictly legal, it's merely frowned upon by the network providers, who are happy to assign new identities to telephones which don't have outstanding bills attached to them. After all, people selling a mobile phone won't want to use it again, so that's an account that's not earning the network provider any more money. They'd be foolish not to agree to change its identity.

OKI SYSTEMS 1130E

This mobile is around the mid-range of the market in terms of features and price. It's got a scratchpad which allows you to make a note of numbers while you're talking. An automatic answer facility 'picks up' the phone after two rings and there's a call timer, to give you a running cost of calls since you bought the phone. This feature can be used on either Cellnet or Vodafone. Best deal around is probably from Martin Dawes Communications (0800 500 150), which can sell you one for £129.00 inclusive of VAT and connection.

PANASONIC I

The Panasonic I series is an Editor's Choice from What Mobile and Cellphone's May 1993 edition. It also offers the option of extended life batteries, giving 150 minutes of talking or 24 hours of standby. This phone is also easy to use in the dark, thanks to its backlit LCD display. The phone doubles as a personal organiser, allowing you to call up all sorts of information in much the same way as a pocket organiser and there are many security features. This costs just £309 from the Carphone Warehouse (with the inevitable free connection) and includes a desk-mounted trickle charger, which can charge a spare battery and the phone's mounted one as well.

MOTOROLA MICROTAC II

This is a leading-edge mobile phone. It looks the business in jet black plastic, has a flip out mouthpiece to let it fit snugly into your pocket and weighs just 225g with ultraslim batteries. This reduces standby time to 7 hours and talk time to just 45 minutes, but a larger battery can almost triple those figures. It's also complete with all the functions of a personal organiser, with additional modes such as auto dialling of all 99 stored numbers and a system which shows the incoming caller's number. Bet you it's got a 68000 series chip inside.

CALLBACK OPTION

If your mobile or carphone is covered by Callback, when your phone is switched off, callers are automatically diverted to a message bank, which records their message to you. When you next use the phone, your Callback bank will advise you that there are messages waiting, which you can choose to listen to, or leave for later retrieval. This useful service is offered free with every BT mobile subscription and is an option with some other makes. However, when receiving messages, the service costs 25p per minute and to retrieve them costs 33p per minute.

CALLING ALL SPACE SHIPS

Communications is ever-more important in today's society. With 1,500 million phones on the planet, if you've got one, you're part of a massive network which touches the lives of most communities around the world. From the bottom of the sea to the enormity of space, wherever mankind travels, he can stay in touch.

Perhaps not in our lifetime, but one day, interplanetary communications will become possible. ET may stand for the essential or extra-terrestial telephone; we may end up lending our portables to any passing alien needing to phone home for a lift. Don't laugh - they laughed at the idea of space travel once... ***AUI***

GET IN TOUCH WITH *AUI* AND OKI!

If this ***AUI*** Special Supplement has whetted your appetite for communications in general and going mobile in particular, but your piggy bank has been stretched to splintered pancreas point by the recent tax increase, never fear. ***AUI*** and OKI have combined to give away an OKI 1130E mobile phone to our most switched on reader!

If - and only if - you can answer these three questions, you could be a winner!

1) WHAT IS YOUR NAME? _____

2) WHERE DO YOU LIVE? _____

3) COMPLETE THE FOLLOWING SENTENCE IN NO MORE THAN TEN WORDS: "OKI MOBILE PHONES ARE TERRIFIC BECAUSE..."

_____

_____

Write your entries on a postcard or the back of a sealed envelope and post them to:

AUI/OKI PHONE COMPETITION
AUI
52 GEORGE STREET
LONDON W1H 5RF

The closing date is September 30th 1994. Good luck!

Ladbroke Computing

33 Ormskirk Rd, Preston, Lancs, PR1 2QP

Ladbroke Computing International are one of the longest established home computer dealers in the U.K. We have developed an extensive customer service policy which involves testing of all hardware prior to despatch to ensure that goods arrive in working order, offering free advice and support over the phone and keeping customers informed. Although our prices are not always the cheapest we do endeavour to offer consistently good service and backup.

All prices/specifications are correct at copy date 13/4/94 (while stocks last), and are subject to change without prior notice. All prices include VAT but exclude delivery.

How to Pay
You can order by mail Cheques/Postal Orders made payable to Ladbroke Computing. Or give your credit card details over the phone.

Delivery
Postal delivery is available on small items under £40 (Normally £3, phone for details). Add £7 for courier delivery. Next working day delivery on mainland UK subject to stock (£20 for Saturday delivery).

Open Mon-Sat 9.30am to 5.00pm.
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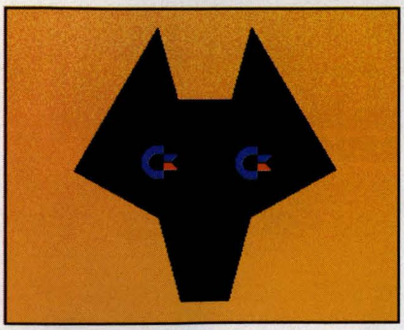
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THE VIDEO COLUMN



Wolverhampton and Commodore see eye to eye over the Amiga!



The slide, video and print copier for later digitization.

Alan Puzey puts you in the picture of what's being seen on the video scene.

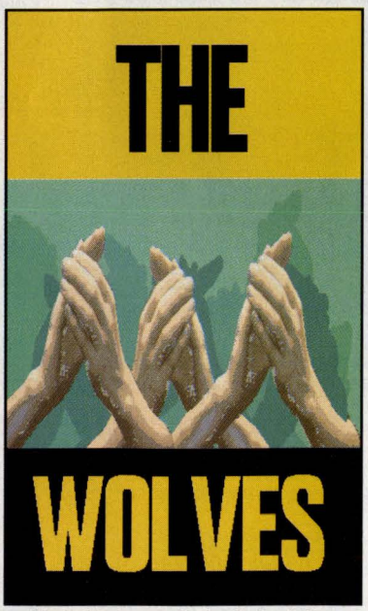
THROWN TO THE WOLVES!

Wolverhampton Wanderers - one of the twelve original clubs to form the first football league - have a long and illustrious past, but have not tasted great success for a few seasons now. With a reported £20 million currently being spent on the Club and ex-England boss Graham Taylor recently instated as manager, they are once again trying for the big time.

They have a new all-seater stadium and to go with it there are two giant videowalls at opposite corners of the ground - controlled by Amigas. As we reported in NewsFile recently, they use the "Expandaview System".

Each VideoWall consists of 256 monitors and the large images show up most clearly, even in bright sunlight. Using "Superbowl" software, a click of the mouse button can bring up a range of scrolling messages (ready prepared or produced on-the-fly), animations, graphics or initiate a full-blown multimedia display.

At the match I attended there were a variety of personal messages up there on the screens, half-time scores, Wolverhampton club chants and animated sequences that graphically accompanied goals, penalties, near-misses and the like.



A typical Amiga graphic for display during a match.

Wolves are very pleased with their new acquisition and as their achievements on the pitch progress, they want to match this with improved Amiga graphics for use before, during and after the matches.



The slide copier for video digitization.

DIGITIZING SLIDES

Slide films are sharper than prints, so if you can digitize from slides you are on the way to better quality computer images. Thoughg the Canon Ion is an ideal vehicle for this, its price may put it out of the reach of ordinary Amiga users so this month we have been looking at a couple of much cheaper alternatives.

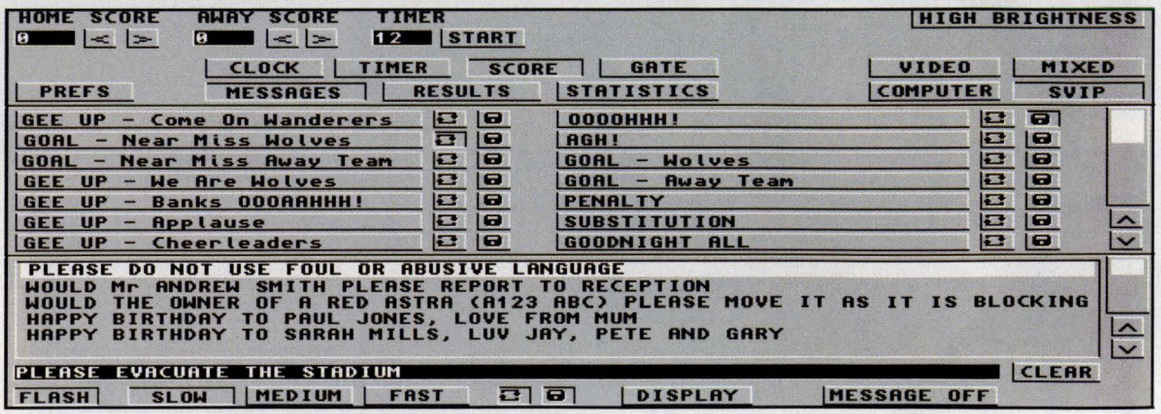
We tried the "Aico Video Duplicator" - a light-tight tube with a macro lens at one end and a slide holder and light diffuser at the other. This unit is attached to the front of the lens of your camcorder via the screw thread for filters. A range of three adaptors are provided that cater for the most common screw threads.

The slide to be copied is then positioned in the holder and the zoom lens of the camcorder used to select all or part of the slide. The unit is aimed at any suitable light source, but aiming it at the sky is simplest and produced the best results. The camera is connected to a digitizer which will supply an image to the Amiga.

We also used a "KewMode Co-Producer". This is a light-tight box (30cm x 22cm x 15cm) with a macro lens in one face and a high resolution mini screen in another, at ninety degrees to the first. A slide is projected onto this screen using a projector, and a mirror within the box reflects the image through the macro lens and into the camcorder lens for digitizing. This needs to be carried out in a darkened room so that the screen image is not degraded by spurious light.

Though in either set-up approached the results from the Canon Ion, they both produced images as good as I have seen offered by photographic shops and in magazine small-ads. The Aico produced the discernably better results while the Kewmode offered the advantage of being able to copy from slide, cine-film and still pictures. The latter is done by retracting the mirror and turning on a small fluorescent tube in the unit that illuminates photographs up to 15cm x 10cm positioned in one side of the unit.

If you're looking for an inexpensive way to transfer slides or film onto video (and subsequently digitize them for computing), then you could do far worse than check out at these units. The Aico costs £60, the KewMode £40, and they are both available from LektroPacks. Telephone 081 572 9737 for details. ***AUI***



A screenshot from the "Superbowl" software that authors messages and controls output from the Amiga to the VideoWalls.

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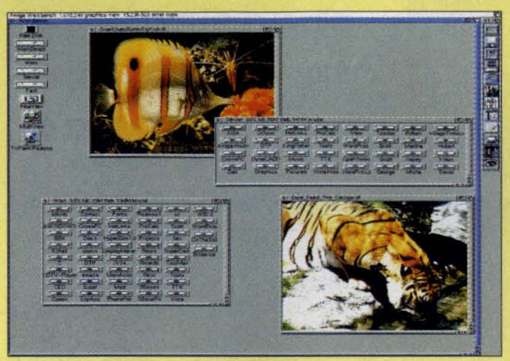
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The Picasso II comes with several screen modes and resolutions that are industry standard and for which all monitors are designed. These modes operate at the proper scan rates and frequencies in order to take advantage of the most popular monitors available. In some instances, where those modes may not be sufficient, you can now create your own custom screen modes with PicassoMode program. Picasso II comes with TVPaint Junior, MainActor (animation program), IFF, GIF, JPEG and MPEG Viewers and drivers for ADPro, ImageFX, ImageMaster and Real 3D. A TVPaint 2.0 bundle is available too.

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3D

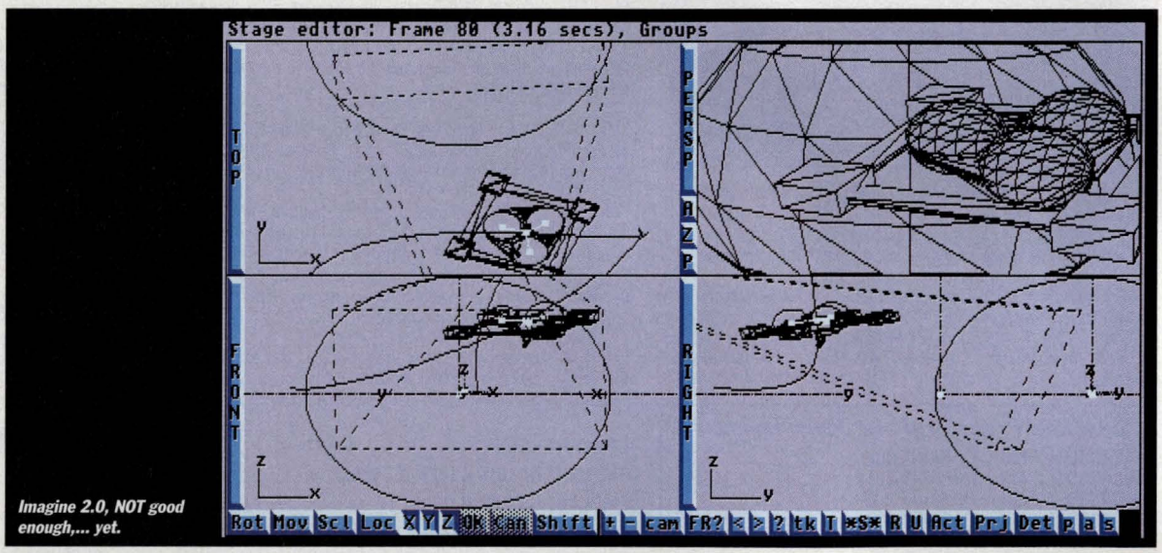
Barry McCarthy puts you in the picture about choosing how to create the best pictures.

Which 3D program should you use for professional work? OK, let's take a look at some fundamental issues! Wow, heavy? Well, maybe, but there really are some important things to consider right now. 3D animation has come to maturity. It really all started with the Amiga and programs like Sculpt 3D and Videoscape. There wasn't a great deal of competition on the PC or Mac. The next step up was the professional level Silicon Graphics machines. A big step. Far too big for anyone without around £100,000 or more.

Over the next few years, more and better programs appeared on the Amiga, such as Real 3D, Imagine, Draw 4D (now Aladdin), Caligari and of course, Lightwave.

Though, the PC and Mac market did not hang around. There are now several excellent 3D packages on both but there is only ONE choice: 3D Studio 3.0. Anyone who's seen it will agree. It has a beautiful interface, all the effects you could want and reasonably fast rendering speed. Guess who designed version 3.0? Dan Silva. The designer and programmer of Deluxe Paint I to III. This is why 3D Studio 3.0 is so good and why Deluxe Paint 4 isn't. The price of 3D Studio? £2500 and worth every penny, but not really within the reach of every pocket! Mind you, the PC is a cheap machine and it's getting faster and better all the time.

So what's the competition on the Amiga like? Unfortunately, the development of the Amiga has slowed down a lot. Commodore just doesn't have the money or apparently the organisational ability. On the other hand, the software has really grown up of late. There are now several REAL contenders to 3D Studio. Lightwave 3.1 (soon to be Lightwave Pro) is the main contender. Imagine 3.0 is hoping to join Lightwave, but we'll have to wait and see. (It's now been released - official).



Imagine 2.0, NOT good enough,... yet.

The software has really grown up of late. There are now several REAL contenders to 3D Studio.

Others that don't quite make it are Real 3D 2.xx due to its horrendous interface (go look at 3D Studio, lads), Aladdin 3.0 due to its 'not quite so horrendous but still too awkward for pro use' interface and Caligari due to its lack of essential tools and effects.

Being honest, the competition has caught up. I personally have to make a decision whether or not to stick with the Amiga. Sad, but true. Now that Commodore have such serious money troubles, it may be make or break time. Will the Amiga survive? I have no doubt that it will. Will it finally be properly financed and marketed? God, I hope so!

Let's round up the considerations then. There are 4 basic considerations:

1. Ease of use. 2. Capabilities. 3. Speed. 4. No bugs!

Often, they will conflict with each other. It may have stunning capabilities, but lousy ease of use (Real 3D 2).

If you are going to make money out of it, it MUST be quick and easy to design animations and objects. Rendering speed is not so important as long as it's not ridiculously slow (it'll probably be done overnight anyway and you can always buy more machines to spread the load).

Capabilities

Next comes capabilities. Now don't get too carried away here, we just want the essentials to start with. And they are?

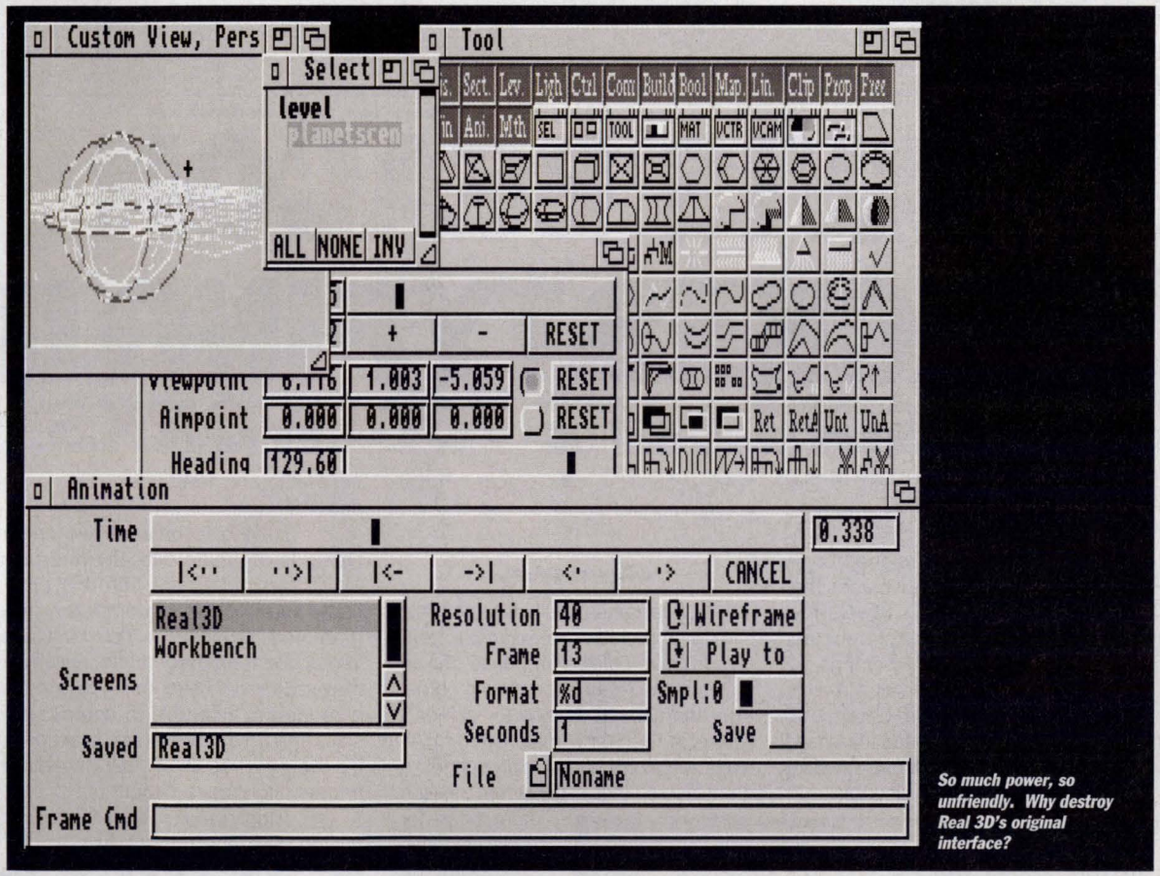
Good anti-aliasing (that doesn't slow down rendering too much). This just can't be stressed enough. The difference is astounding, especially to clients!

Tips

A decent lighting system. Different lights, such as neon, shaped, spots, background, complete with soft edge shadows (shadow maps NOT ray tracing) and precise control over the intensity and area of effect.

Smooth key-frame motion. Every movement MUST have the ability to have acceleration and deceleration. Variable motions like oscilation are also important.

Easy and fast textures that are reliable and constant. Objects without texture are very boring.



So much power, so unfriendly. Why destroy Real 3D's original interface?

Bones

This enables the easy bending and animating of objects, without nasty hinge points. Import and export of common formats, such as DXF, 3D Studio, Postscript. Now you have access to the ENTIRE world of 3D. Don't be narrow minded or jingoistic about your favourite computer or program.

Let me know if you think I've missed any.

Speed

Finally, comes speed. (No, Bugs are taken for granted!) Not just the rendering speed but the design speed. How long does it take to design animations and objects?

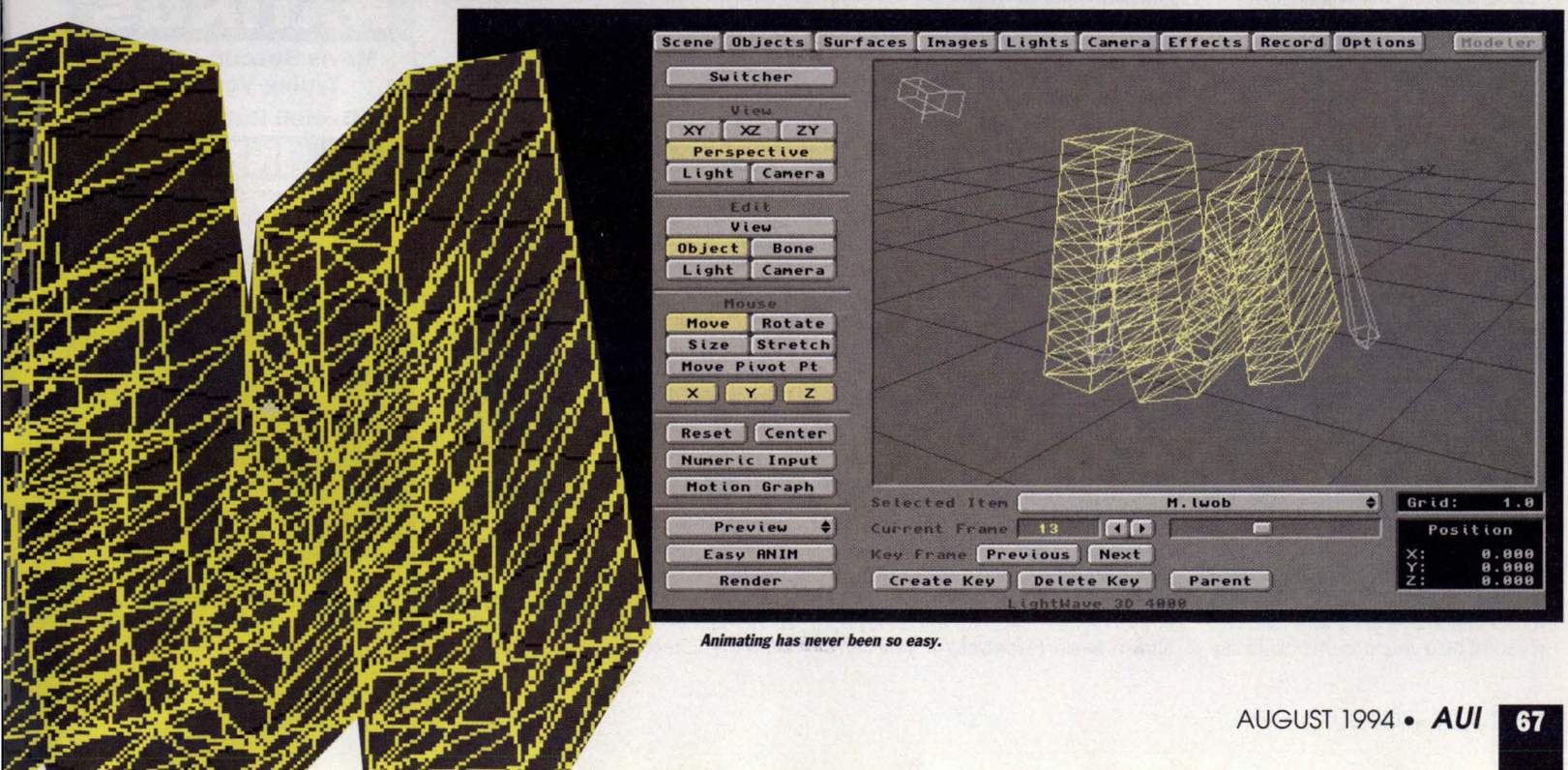
Rendering speed is very much down to the machine. Most of the 3D packages are similar in their rendering times. Imagine is probably the fastest. Real 3D is not and Lightwave is average (about twice as slow as Imagine, with a similar scene. Surprising eh?!).

The Amiga is fast, but not fast enough. Give me a 68040 at 40mhz as the minimum. Or a 100mhz Pentium or maybe a PowerPC chip?

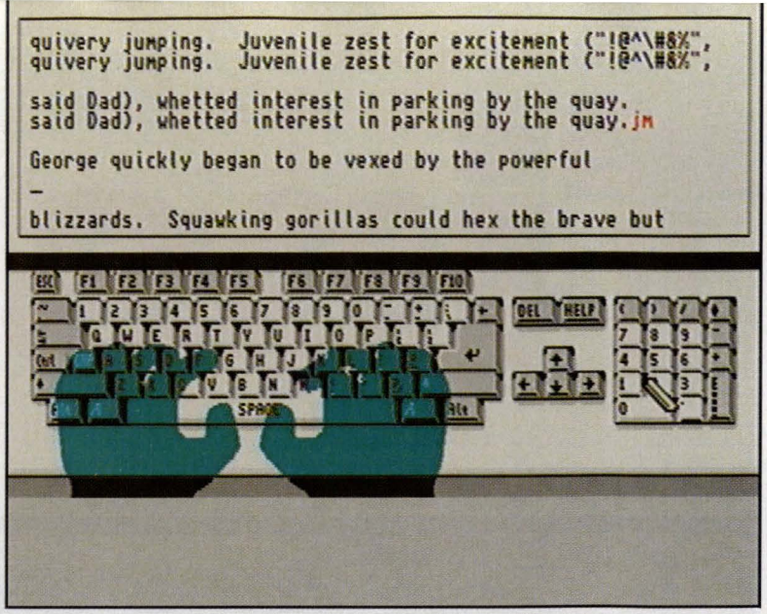
Any other options? Ah yes, there is. The Warp transputer board is well on the way and this will revolutionise rendering. It gives you the capability to have have virtually unlimited speed! Vista Pro has apparently been tested rendering in real time on a 1000 mip system. That would set you back around £10,000. Pricey but think of the power.

Conclusion

The conclusion, so far, is that the only Amiga 3D program worth using in a professional role, is Lightwave 3. I reserve final judgement because Imagine 3.0 will be through my door within a week. Or will it? ***AUI***



Animating has never been so easy.



Let your fingers do the tlaknig - oops, think I need Mavis's help.

MAVIS BEACON TEACHES TYPING II

THE SOFTWARE TOOLWORKS

Martin Witton gives up the two finger computer saluting process to go for the Rolls Royce of the keyboard.

Change comes in a variety of forms. The dramatic kind, which often arrives just as you are comfortable with a particular routine, tests the survival of the fittest. Slow onset change, however can take you equally by suprise when the realisation dawns that not all is as it was. Strangely for such a technological device, the computer has brought more the slow kind of change, particularly in affecting people's attitudes as their abilities are extended.

A large local organisation I know had a Word Processing department with the power to key in work at their somewhat capricious convenience and the users of their services were at the mercy of the not always quick or cooperative operators' whims.

But the organisation increased the number of PC terminals, laptops and stand alone hardware. Many employees confronted with their own PC had no keyboard skills and being bitten by the bug of exploring the possibilities of computers found that their ability to 'write' using a WP package was severely hampered by just using two fingers. Mavis Beacon to the rescue! So exit, gradually, one self-important W/P Dept.



If it all gets too much, relax with a game.

Mavis Beacon Teaches Typing II (MTTT II) has appeared on virtually all formats of computers. It's probably the most widely recognised program of its kind - I nearly said "type"! There are a number of other typing instruction programs, some of them PD but MTTT is the Rolls Royce and for its price provides excellent value when you think of the time it can save in enabling you to avoid mistakes or simply getting keyboard work done more quickly.

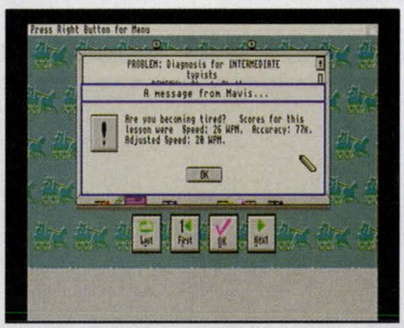
MTTT originates in the USA but this latest version has been created for UK users to have a very friendly do-it-youself teaching package, with a personalised typing course to meet individual needs. MTTT II uses well-proven teaching methods and 16 measures of interactive error analysis. Not only will it help you to learn how to key in more quickly and accurately, without looking at the keyboard, but the program can also enhance the use of graphics and other functions with which you may be unfamiliar.

Profile

The first time we ran MTTT II, a series of dialogue boxes appeared for the user to add his or her own profile and so enabled the user to start at the appropriate level - beginner, intermediate or advanced.

The program is designed for all ages and the user profile includes the selection of 5 - 8 years, 8 - 14 years or 14 to adult. A blackboard records progress, so each time a user logs in, Mavis checks whether or not it is you! From this MTTT II will determine whether or not you are ready for a new lesson or if you need another practice session to go over your mistakes.

You do have a little control over this as you are offered a selection of 'always, often, sometimes or never' in the Past Lessons Considered icon to determine how heavily Mavis considers earlier lessons when she decides on your next lesson.



Mavis gives you a report on your progress.

Beware, as MTTT II takes all your past lessons into consideration, not just the most recent and it may think it knows better than you if you choose the 'never' option! Time matters, of course, your speed is noted by the Frustration Sensor to pace your progress.

The program was full of surprises. Anyone who thought that learning to type was a mundane occupation will be amazed to find the background music set with a metronome for keying in with rhythm. This can get annoying after a while (especially if you can't keep up or lose your place) but the volume control works, so use it!

Games

The arcade games offer light relief, while still giving practice. For example, your 'words per minute performance' can be tested in the Road Racer typing game. You can choose options for games - Never, A Bit, Sometimes, Often or Always. Mavis will occasionally suggest a game as a change of pace from a lesson - more often for younger students.

Both the manual and text on the screen offer interesting facts about the history of the typewriter together with quotes from historical writing ("Like a musical instrument, the typewriter is passive and until played upon by the human hand is useless" - William Allen Gilbert 1930) and the lighthearted approach continues with riddles, rhymes and jokes - some terribly corny! Plus there are interesting facts from the Guiness Book of Records.

Unlearning

Having tested out the program I now know the best way to sit in Typing posture - ("You sit with the middle of your body opposite the M key - slightly to the right of the keyboard...). I also know the correct way to present a business letter and how to place the hands position.

Having to unlearn two finger typing is my main difficulty and until Mavis has more data from my practices she relies on computer programmed responses, which don't take into account my bad habits! However Mavis Beacon Teaches Typing does give me the incentive to improve my skills and no doubt if I keep practicing, by the next issue of ***AUI***, my other fingers might have caught up!

Highly recommended (but don't tell the WP department!) ***AUI***

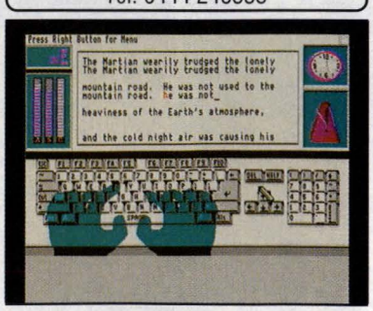
RATINGS

Mavis Beacon Teaches Typing Version 2

Overall Rating 8/10

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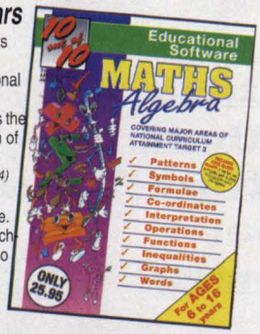
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Maths (Algebra)

For children 6 to 16 years



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A truly flexible package covering many topics essential for building a good educational foundation. The areas covered have been carefully chosen by a team of experts and come from several subjects and levels of the National Curriculum.
The child's progress in these areas is constantly monitored and recorded and parents or teachers can easily discover where a child needs help. As with all the *10 out of 10* series, further motivation to play the games and learn more is added in the form of High Score Tables.

Dinosaurs

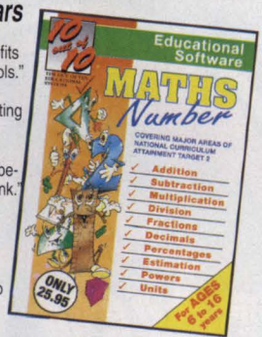
For all ages



This package is the fun way to learn the facts about dinosaurs. The six games all have superb digitised graphics to make a whole area of history – dinosaurs – come alive.
If you came face to face with a tyrannosaurus would you run away? Or are you safe because it's a vegetarian and wouldn't eat you? This, together with 100s of other interesting facts, can be discovered from this enthralling package.
The six games – all with single and multi-player options – are educational fun for everyone.

Maths (Number)

For children 6 to 16 years



"Well thought out to offer real benefits to children studying in British schools."
– PC Plus (July '93)

"Educationally worthwhile and exciting to play – a rare combination."
– Archimedes World (December '92).

"Unique in home-based programs because of the National Curriculum link."
– The Micro User (September '92)

"Excellent for reinforcing specific mathematics knowledge."
– Junior Education (July '93)

"The *10 out of 10* Series lives up to its name." *– PC Home (August '93)*

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"Outstanding. All of the activities are not only very enjoyable but they're well thought through. It's one of the best multi-purpose infant packages I've seen in a long while. If you have young kids get it for the home. If you're a teacher, hammer on the headteacher's door and beg for money to buy a copy."
– Archimedes World (July '93)

"At just £25.95 you'll be hard pressed to find anything which even comes close to Early Essentials."
– Micro Computer Mart (Sept. '93)

English

For children 6 to 16 years



"Everything being done is relevant to the player's education. An invaluable curriculum experience, plenty of fun, lots of variety."
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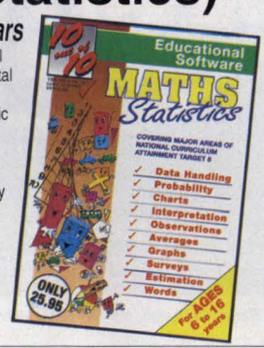
"Guaranteed to sustain the attention of even reluctant learners."
– RISC User (January/February '93)

"Most importantly, as the games are fun, children can't help but learn."
– Acorn Computing (March '93)

"Allows progression from Junior school age right up to GCSE level."
– Amiga User International (Sept. '93)

Maths (Statistics)¤

For children 6 to 16 years



Attainment Target 5 of the National Curriculum is Data Handling – a vital area of Mathematics. *10 out of 10* Maths (Statistics) covers 36 specific topics from that subject.
In this package, recording animal sightings in an animated pond or rolling dice are just two of the many challenges that children will relish as they learn about statistics. And can graph drawing be a game? It becomes arcade action as bricks and bombs are dropped onto the charts. This is a really enjoyable way to learn about statistics.

French¤

For children 6 to 16 years



This suite of six educational games will give fun and motivation to all children learning French. The package is designed with the Modern Languages National Curriculum firmly in mind and contains many challenges to reinforce facts stated in Attainment Targets 3 and 4.
10 out of 10 French is essential for children on Key stages 3 and 4, but the numerous parent and teacher customisation options make the software suitable for all children – however young – who are learning the French language.

Driving Test¤

For all drivers and learners



Whether you're a novice learner or an advanced expert, there's plenty you can learn from this package. There are thousands of built-in questions and you can choose whether you want to answer them directly or add to the fun by trying them within games.
The six games have been designed to be fun for all adults and include strategy, mental agility, coordination and more. And, if you think you are up to it, you can "*take the test*" – a challenge covering many areas of the Driving Test.

The INNOVATIVE *10 out of 10* Series

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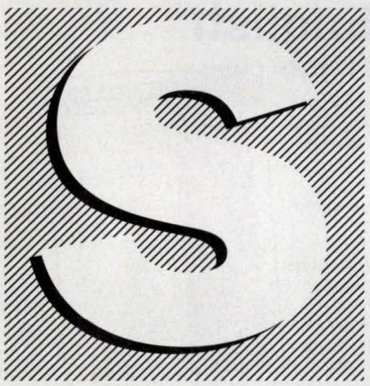
* The free trial may not be used in conjunction with any other offer.

The *10 out of 10* Series is available from all good computer software suppliers

The AUI A to Z of the Amiga

PART IV

All good things must come to an end... Patrick Howlett, Aitor Ibarra, Andy Eskelson and others of the *AUI* team have at last run out of letters of the Amiga alphabet with this, the final installment of the *AUI* guide to everything Amiga.



Scala

Scala - Probably sold more Amigas to the video industry than any other Amiga application (bar the Video Toaster), Scala, coming unusally for an Amiga product from Norway, is a powerful video authoring and sequencing package with lots of multimedia extras that is very easy to use and wipes the floor with systems on other platforms. Recently Scala, now the name of the company that produces the system, has done a deal with a major US communications corporation to put the technology into TV set top devices.

Screens

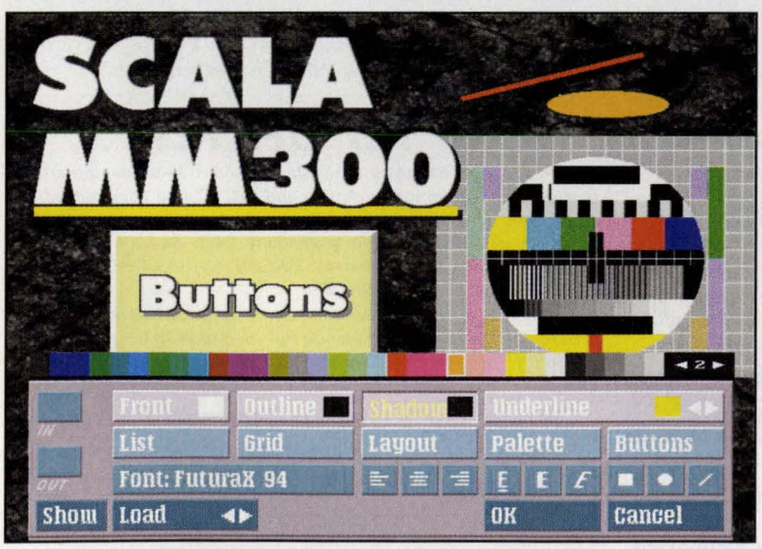
Screens - An Amiga 'trademark' this - we can use several virtual screens on the same monitor, which can be of differing resolutions, simultaneously. They stack on top each other and can be slid around. They provide a very fluid interface for multitasking, as it easy instantly to switch from one screen to another. No other comparable computer can do this.

SCSI

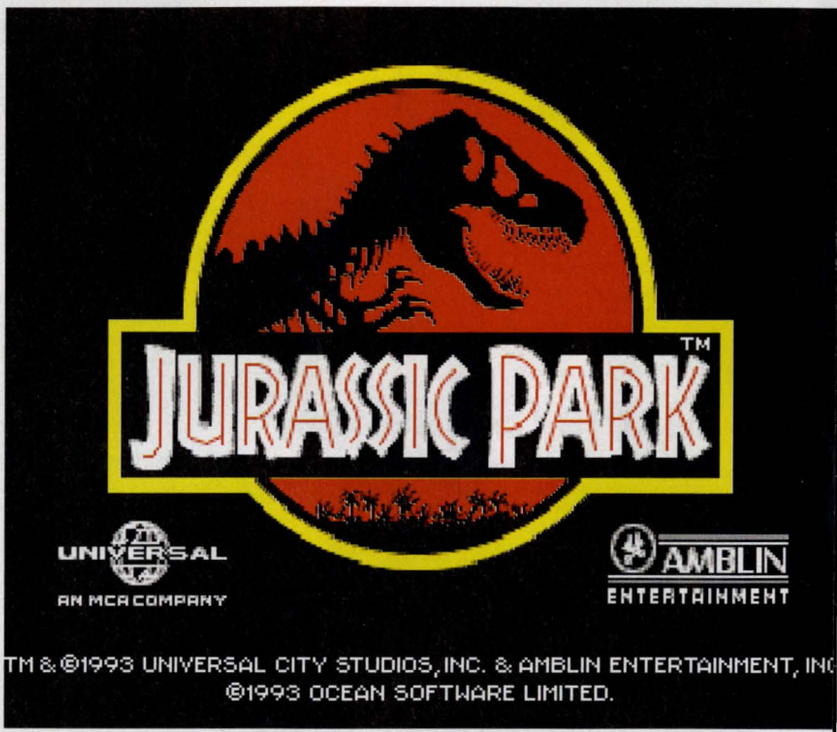
SCSI - Small Computer Systems Interface - pron. 'scuzzy' - an expansion system used primarily by storage devices like hard disks, but also things like scanners and printers. Much, much more flexible than IDE. You can connect up to 7 devices to an SCSI interface, and the newer SCSI II specification will give you transfer rates of up to 10 megabytes per second.

Serial Port

Serial Port - Referred to as the SER: device in AmigaDOS - a port on the back of the Amiga, used to connect devices like modems and printers. Slower than a parallel port because it can only send information 1 bit at a time.



Top Amiga presentation package gets into the cable revolution.



Jurassic Park - The game, but the movie used the Amiga.

Silicon Graphics

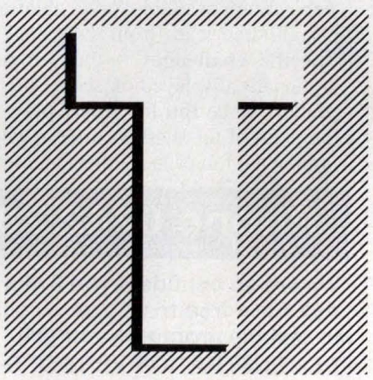
Silicon Graphics - High end UNIX graphics workstations which just ooze power. They were used to do the graphics for Terminator 2, Jurrassic Park etc. and cost a fortune. A 4000/040 + top end graphics card + mucho memory will do almost as much and you'll have change for a tasty sports car. The manufacturer that makes them, SCI, is said to be the third most profitable computer company in the world.

SIMM

SIMM - Single In-line Memory Module. A convenient package of chips which is the easiest way to expand memory- they just slide into special slots. Much easier than inserting fragile chips one by one. Many RAM expansions use them. The A4000 has SIMM slots on the motherboard.

Startup-sequence

Startup-sequence - The Amiga's equivalent of MSDOS autoexec.bat - a file containing a script of AmigaDOS commands to be executed every time you boot up the Amiga, to set certain operating parameters etc.



Tim Jenison

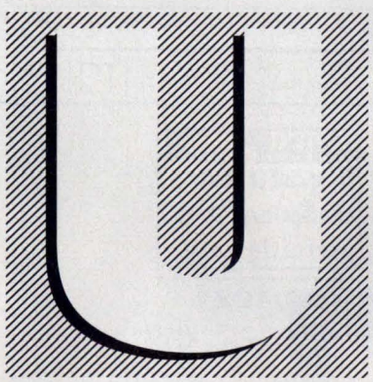
Tim Jenison - Founder of Newtek and legendary inventor of the Video Toaster. Before that he begat the notable DigiPaint and DigiView, the Amiga's first digitiser. A typically kooky Amiga type, he once arrived to deliver a speech at an Amiga show, zooming through the hall to the stage on roller skates and powered by a huge motorised fan attached to his back. He is now rumoured to be interested in acquiring the Amiga technology to keep his Video Toaster market alive. He should be able to afford it as it has been reported that an electronics multinational has offered half a billion dollars for Newtek.

Tool

Tool - Any program in Amiga Workbench parlance. Double clicking on an icon in Workbench that represents a Tool will load and execute that program.

Tooltypes

Tooltypes - Most Tool icons support Tooltypes - special parameters and instructions you can set through the Workbench Info/Information option. For instance, under Workbench 2 onwards, many programs support a tooltype called PUBLICSCREEN which tells them to open their window on the default public screen rather than the Workbench screen.



UNIX

UNIX - A powerful operating system, with which the Amiga's has lots in common, used primarily on mini-computers and high end workstations. Over twenty years old and still by its fans said to be going to take over the world.Others think its dying on its feet. The C language was created to write later versions of UNIX.

User-startup

User-startup - Another part of the startup sequence on WB1.3 and up. This is where assigns and user specific startup actions are stored, keeping the main startup-sequence free from application program clutter.



Video Toaster's Lightwave is to be released as a stand alone PAL version.



Video Toaster

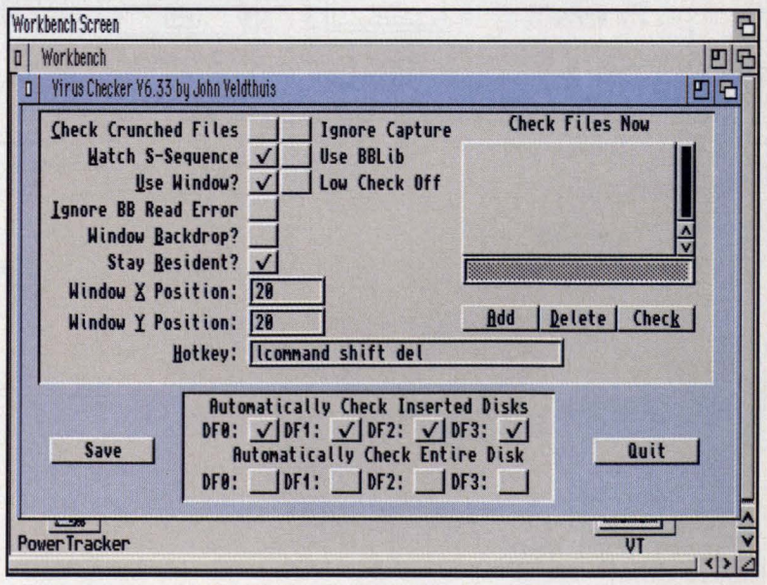
Video Toaster - A pioneering graphics card with some wonderful software, Lightwave, that took the video world, in the USA at least, by storm. It is so successful that NewTek, its creators, have to pretend that Amigas equipped with Toasters aren't actually Amigas to get them to sell to prejudiced PC and Mac users... As it only works with NTSC we can't use it (we use PAL) - but we have long been promised (years now) a European version and at last it looks like coming true. Lightwave should be going on sale in Europe shortly and the Toaster is now available with a standards converter, Passport 4000. But those who know say that broadcast standard, the holy grail of video, isn't going to happen until there is a true PAL Toaster.

Virtual Memory

Virtual Memory - A neat idea. It uses an MMU to fool your Amiga into thinking it has lots more memory by allocating some hard disk space as memory. It is, of course, a lot slower than real memory, but given the price differential between RAM chips and hard disks, it does have many applications. The Amiga operating system doesn't support virtual memory but a program called GigaMem will do the trick.

Virtual Reality

Virtual Reality - No, not a description of many Amiga products that have been promised but never appeared. VR is a much-hyped idea that, generally with a headset to exclude outside distraction, gives you the impression of that you are actually within whatever the program that is running is letting you "experience". Not much more at present than a high tech development of the old 3D glasses



Virus Checkers are essential for safe computing.

but likely to become a major factor, especially in entertainment and training, by the end of the 20th century.

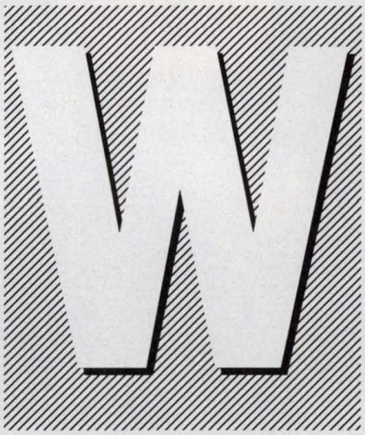
There seems, according to the Virus Hunters, virtually no new viruses appearing on the Amiga. No-one knows why.

Virus

Virus - A nasty program which lives on disks. Once inside your computers memory it can wreak havoc, corrupting disks and causing crashes etc. There are some 3000 known viruses in existence most of them for PCs. There seems, according to the Virus Hunters, virtually no new viruses appearing on the Amiga. No-one knows why but some people don't think it's a good sign. The virus writers may be electronic vandals but they are also very creative and when they migrate away from a machine it could be that the whole creative programming dimension of that computer suffers too.

Virus Checkers

Virus Checkers - These highly beneficial programs monitor inserted floppies and parts of the system to check for possible virus infection. The better checkers will optionally remove the virus before any damage is done. Essential for virus free computing. There are also some hardware virus checking devices but they are rare on the Amiga.



WBStartup

WBStartup - A special drawer into which you can put programs that you wish to run automatically on booting. First appeared in Workbench 2.

WIMP

WIMP - Windows, Icons, Mouse, Pointer - the building blocks of most GUIs (Graphical User Interfaces). Intuition is a WIMP based GUI.

Windows

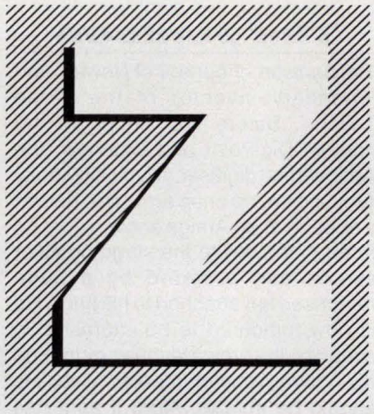
Windows - Rectangular areas of the screen which may be resized, moved around, and put above or beneath other windows.

Only one window can be active at any time and it is that window which will receive information about which keys you've pressed, gadgets you've selected etc and pass it on to its program.

Windows is also the name of Microsoft's program for the PC which has sold, it is said, over 50 million copies and made Bill Gates, Microsoft's boss, the third richest man in the USA with something like £4 billion stuffed in his jeans pockets. AND Microsoft's Windows isn't as good as the Amiga's system. Ain't no justice in this world, is there?

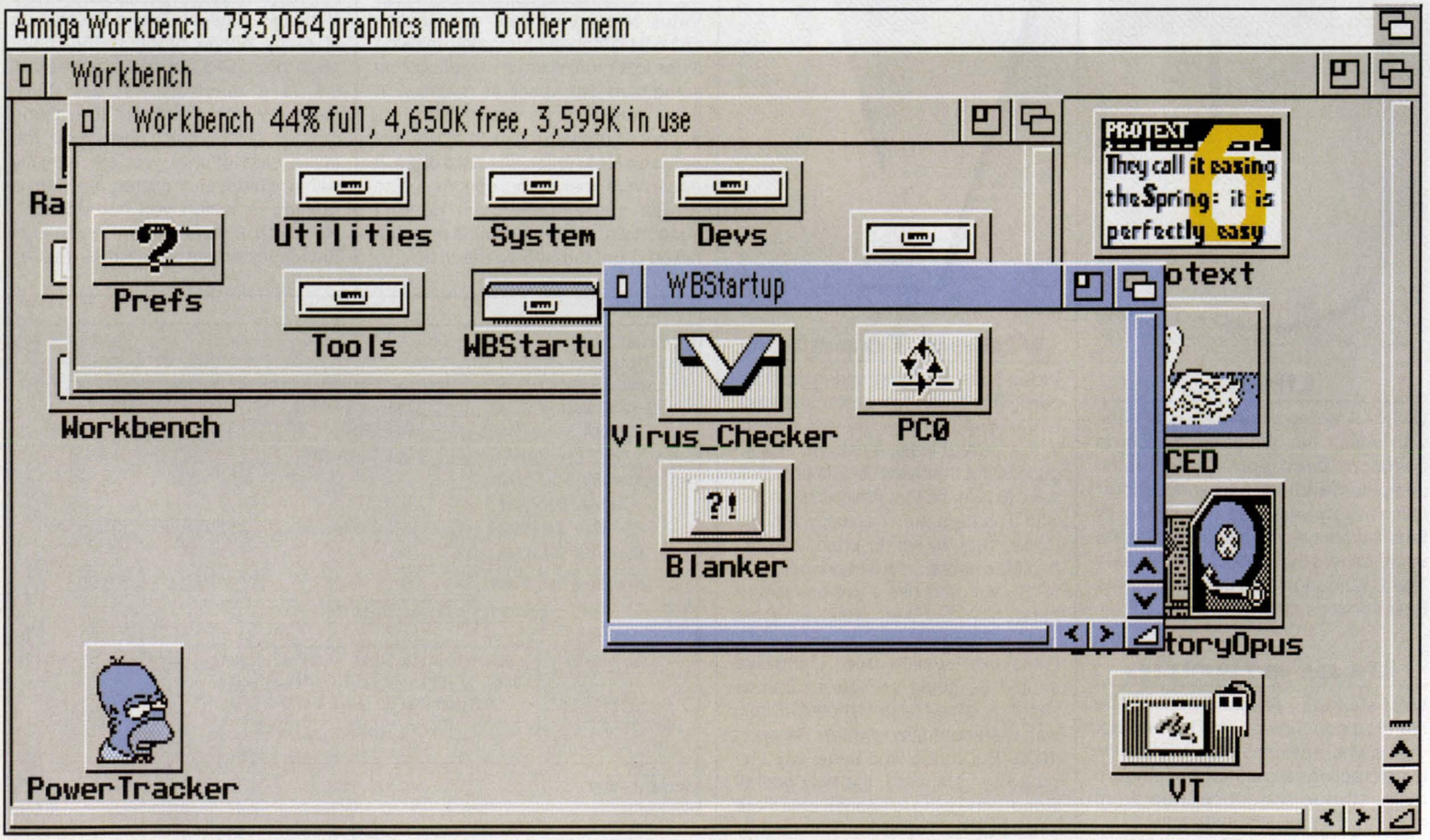
Workbench

Workbench - The common name for the Amiga's operating system/GUI, Workbench is actually a program mostly kept in the Kickstart ROM and is used to manipulate files, launch other programs, format disks etc by the user clicking on icons which represent those objects (files, disks, programs, directories) and/or making menu selections.



Zorro

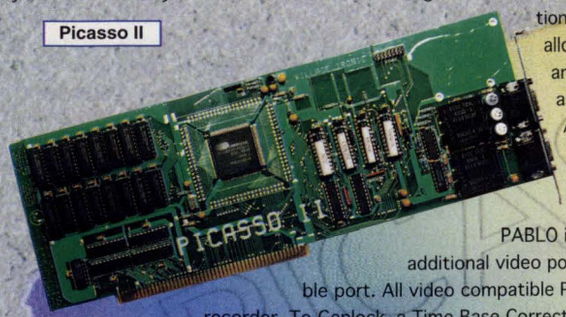
Zorro - the Amiga equivalent of ISA/EISA/MCA on the PC or NuBus on the Mac - its expansion bus. Zorro I was the system used in the A1000 which was really an extension of the CPU bus. It resurfaced as the expansion port on the left hand side of the A500. Zorro II, introduced with the A2000, was a more traditional multi-slot expansion system, which was and is far superior to the common 16bit ISA system on the PC. Zorro III, introduced in the A3000, is fully 32bit and even faster (the A4091 SCSI-2 card, which fits into a Zorro III slot, is capable of shifting 10Mb per second). Smaller Amigas don't have Zorro slots, which makes them harder to expand. ***AUI***

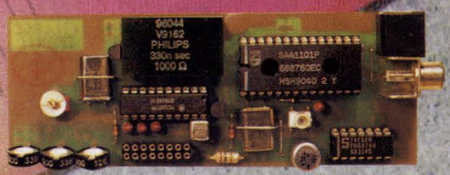


The Workbench Startup drawer can contain programs which start every time the Amiga is booted up.

PICASSO II is a graphics card with a difference. Picasso II offers true Retargetable graphics on any Zorro based Amiga, but the real power lies within the software! The installation is quick and simple, just plug in the card, connect the cables and run a fully automatic install script. You will now find new Picasso II resolutions available from the standard preferences ScreenModes program, and useable by all OS friendly programs. The new CHUNKY option offers incredible speed with a 256 Workbench. Picasso II will intercept any program when it is first run. You may then tests it's compatibility and set your preferred screen choice thereafter. Picasso II removes the 2Mb Chip RAM limitation, as all screens are stored in Fast RAM. You may therefore open as many large, colourful screens as your Fast memory will allow! Total screen configuration is provided through PicassoMode, which allows the creation of custom screens quickly and simply. Picasso II comes with TVPaint Junior as standard, along with drivers for ImageFX, AdPro, ImageMaster, Real 3D and GIF, IFF, JPEG and MPEG viewers. Also included is MainActor, an animation program with Picasso II support. A TVPaint 2.0 option is also available.

Picasso II





Pablo Video Encoder

PABLO is the new Video Encoder option for Picasso II. Pablo offers the user two additional video ports, one for a standard Composite Sync Signal, and one S-VHS (Y-C) compatible port. All video compatible PAL devices can be plugged into Pablo, such as a colour TV or a video recorder. To Genlock, a Time Base Corrector is required. In use, the Intuition driver is switched to the video modes and all PAL resolutions are selectable from the standard ScreenMode requesters. There are five resolutions available, these being 320x256, 320x512, 640x256, 640x512 and 768x576 in all colour depths including HighColour and TrueColour! There is a protective circuit integrated into Pablo so that no modes with more than a 15KHz line frequency can be routed to the monitor. Therefore you can safely switch to higher resolutions for your normal computer display monitor without fear of damaging your video device.



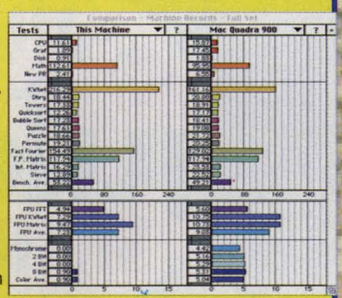
Picasso II Draggable Screens.

PICASSO II 2MB £349.95 | PICASSO II 2MB + TVPaint 2 £499.95 | PABLO VIDEO ENCODER £149.95

Emplant is a very special product. Not just because it offers a total **Macintosh** solution every bit as good (and often exceeding!) the real thing. But also because together with the new **IBM** emulation module, Emplant offers a true multi-platform solution harnessed within your favourite computer. Here are some of the features of Emplant.

1. Compatible with all Zorro II/III Amiga's.
2. Compatible with all 68020/30/40 CPU's (the IBM can also use 68000/10).
3. Utilises the Amiga's memory, storage devices, parallel/serial ports and sound capabilities.
4. Supports all major graphics cards such as Picasso II, Piccolo, Retina/Z3, OpalVision, Rainbow II/III, EGS, etc. for mono, 16, 256, 65K & 16.8 million colour displays.
6. Support for all SCSI devices (Amiga side and emulation side).

All emulations multi-task properly (i.e. an Amiga application will continue to run simultaneously with the emulation). File transfer options are built in, as is support for up to six virtual screens (i.e. work in 256 colours and instantly switch to 16.8 million colours at any time!). The emulation speed is incredible! The new IBM module is fully 486DX compatible, speed dependant upon your 68xxx processor. Custom chips provide excellent IBM performance - All from the one board! SoundBlaster Pro and up to SVGA screens is all supported, plus lots, lots more!



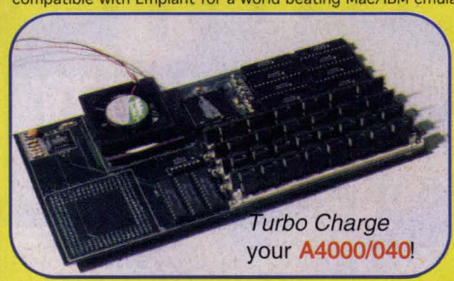
EMPLANT ON AN A4000/040

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OPTION B (SCSI INT) £349.95 DELUXE (SERIAL/SCSI) £399.95
AMIA (AMIGA-MAC INTERFACE ADAPTER) ALLOWS THE CONNECTION OF A 800K REAL MAC DRIVE £59.95

Liana is a simple but powerful peer-to-peer network for connecting two Amiga computers directly via their parallel ports. Liana works with all Amiga's, from the A500 up to the A4000 Tower. Liana also supports the Vector Connection Multi-IO card. The Liana network driver is completely SANA-II compatible. SANA-II is the standard software interface for network protocols of Commodore. Therefore all networking packages using SANA-II will work with Liana (e.g. Commodore's TCP/IP package release 2 or their new Amiga network ENVOY). Liana is supplied complete with the networking package ENVOY, under license from Commodore. ENVOY offers you FileSystem import and export, network printing and multi-user support together with an easy installation and configuration procedure.

LIANA £59.95

X-CALIBUR is a uniquely designed accelerator and RAM expansion unit for the A4000/040. It has the capacity to hold on-board 128Mb of SIMMS (The same standard 72-pin type as found on the A4000). By it's innovative memory design the X-Calibur out performs the regular A4000/040 memory access by 400% at 25MHz! This translates to an average of around 80% and an improvement in disk access of 10 to 20%! The X-Calibur is a piggy-back board to the A4000/040, so it is not taking up a precious Zorro slot. You can use the actual memory module of the A4000/040 (only Fast RAM) and gain the speed instantly. We can also supply a 33MHz version of X-Calibur, either outright or as a later upgrade. Faster upgrades (40MHz and a 68060 version) are planned in the future. Fully compatible with Emplant for a world beating Mac/IBM emulation engine!



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First there was the **Mac** ....
..... now comes
the **IBM PC** !!!



EMPLANT £299.95-£399.95



TrapFax is the most modern Fax program available for the Amiga. It works on all Amiga systems with at least 512K of memory and Amiga OS 2.04 or higher. You can use all fax modems compatible with the international standard CCITT TR29.2 Class 2 to send or receive a fax. TrapFax takes advantage of all the features of the Amiga operating system. The installation is easy and flexible, using Commodore's installer program, and is fully integrated into the Amiga Workbench environment. Configuration is achieved via the TrapFax preferences program. A fax queue manager controls send/receive of faxes in the background and faxes are easily viewed. Using the fax printer driver, you can generate and send faxes using your favourite application. The client/server architecture or TrapFax allows operations over a network, such as Commodore's new ENVOY package.

TRAPFAX £49.95

Allows loading of all images (Memory dependant).
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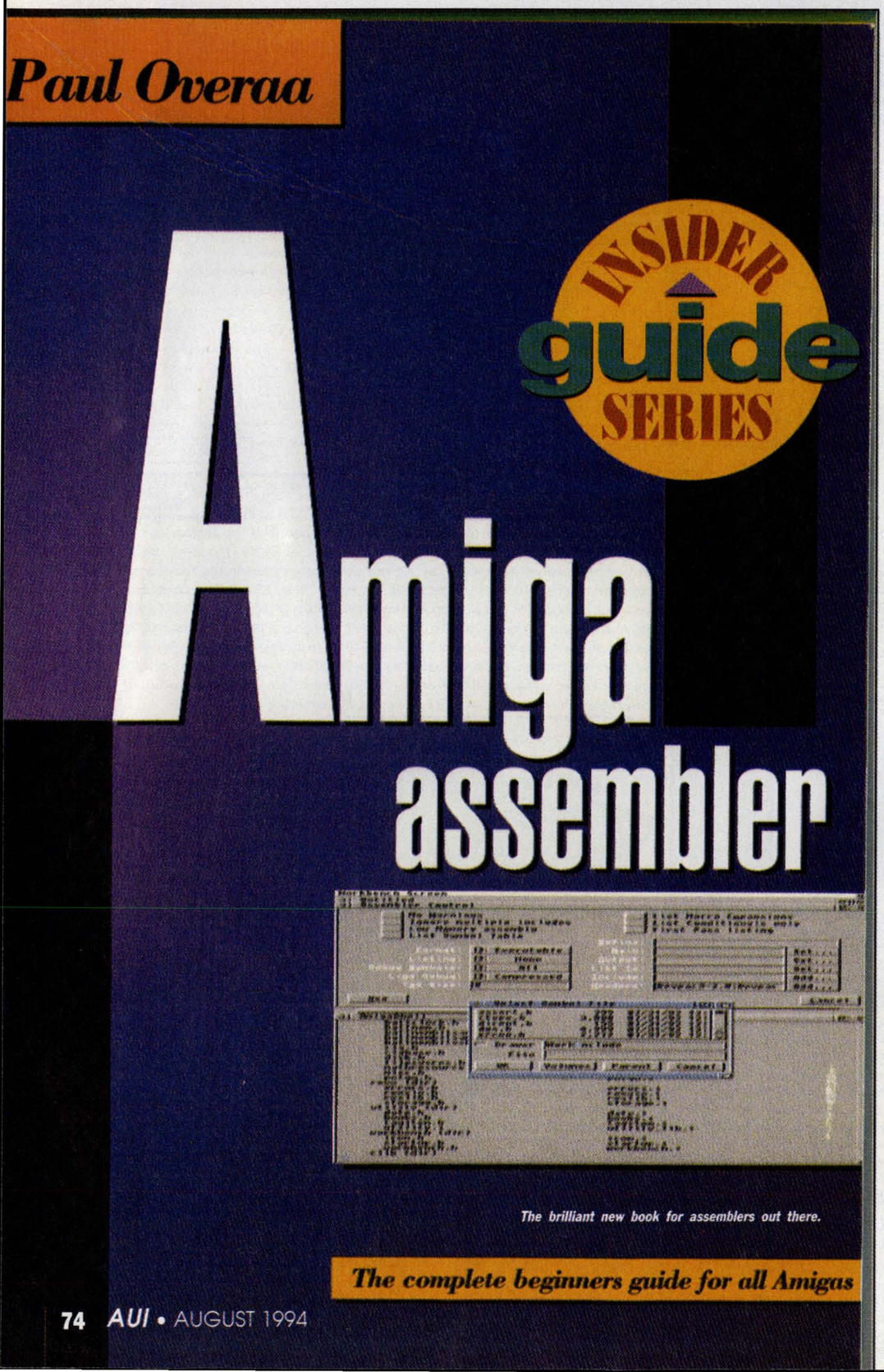
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Amiga Assembler

Andy Eskelson reviews a book, by a familiar name, that achieves really top marks.



There is a range of books available from the publishers Bruce Smith Books, the 'Mastering' range is the most well known. Bruce Smith Books have launched a new series to be known as 'Insider Guide' This book for Amiga assembler is sub-titled The Complete Beginners Guide for all Amigas.

The author is very well known by all readers of ***AUI***, Paul Overaa. Paul is a very talented programmer who also has the gift of being able to explain technical operations in a very simple and easy to read manner. His articles in ***AUI*** demonstrate this very well. I was expecting a good solid grounding in Amiga Assembler to be contained within the pages of this book.

I was not disappointed with the actual content, but for the layout and design...well, the only way to describe it is SUPERB! There is plenty of white space breaking up the text which makes for much easier reading. All the examples are reproduced in a very bold San-Serif font which is very clear.

The examples are all short and build upon each other. It is claimed that the examples can be entered in about a minute each. Well, the shorter ones can, but the longer examples would push this by several times. The bottom line is that the examples do not take hours to enter.

Contained within the book are 'Insider Guides' These are boxed-out panels with a larger INFO icon, They are used to highlight aspects of the text, but without being essential, rather like a super expanded footnote.

Topics covered are things like creating ASCII files with a wordprocessor, or what an assembler is. All sorts of things that are useful and sometimes essential background to the subjects covered, but allowing the text to flow freely and stick to the point in question rather than keep on being sidetracked.

Highlighted

The various sections within the text are highlighted with a big 'drop-shadow box' which is very obvious, and the chapters are highlighted by a broad black stripe along the right hand edge, and the page numbers are in a black tab centred on the bottom of the page. Whoever came up with this design layout deserves a big vote of thanks form everyone. It really is that good.

The contents of the book are divided into 17 chapters and 5 indices. The topics covered range from describing the 68000, Assemblers, Macros, System Include files, Amiga Graphics and many others besides. You have to remember that this is a beginners' guide, and it is easily the best such guide I have come across. I would go as far to suggest that this book should be included as part of any package that provides an assembler, it makes things so clear compared to some documentation that I have used.

All of the descriptions of the 68000 instruction set are provided in Appendix A, and once again it is a very good description of the instruction set.

An order form for a disk of the examples is included at a cost of £1.50. Personally I would recommend that a beginner TYPE in the examples as it will give you a solid grounding in the operation of the assembler and the mechanics of creating the source code.

Congratulations to Paul and Bruce Smith Books on a excellent product, which should be on every assembler programmer's 'must have' list.

Amiga Assembler Insider Guide
ISBN 1-873308-27-2
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PO Box 382, St Albans, Herts AL2 3JD
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Digitisers

How does that work?

Michael Rumbelow leads you gently through the mysterious but fascinating world of digitisation.

One of the simplest and most fun aspects of the Amiga is the power it gives to take any images or sounds you like by the scruff of the neck and bend them, stretch them, flip them or otherwise use or abuse them at your leisure. By scanning photos or still video frames into a paint program like DPaint, Personal Paint or Art Department Professional, giving a crab Lady Di's smile and the wings of a butterfly, and having it fly past the planet Saturn into the pupil of Zena Badawi's eye, is no problem at all.

With a sound sampler like AudioMaster it is similarly easy to sample a snatch of George Formby, slow it down to half-speed and mix it with drumbeat taken from a Dusseldorf techno record. Sampling sounds and scanning images has become the hobby today that catching tadpoles in a jar was forty years ago.

The ability to import images and sound from the real world and mix them with computer graphics and authoring packages is becoming especially useful in creating multi-media software. Multimedia would be inconceivable without it. The keys to this power: scanners, video digitisers and sound samplers are rapidly coming down in price making them increasingly popular tools among amateurs as well for professional multimedia studios.

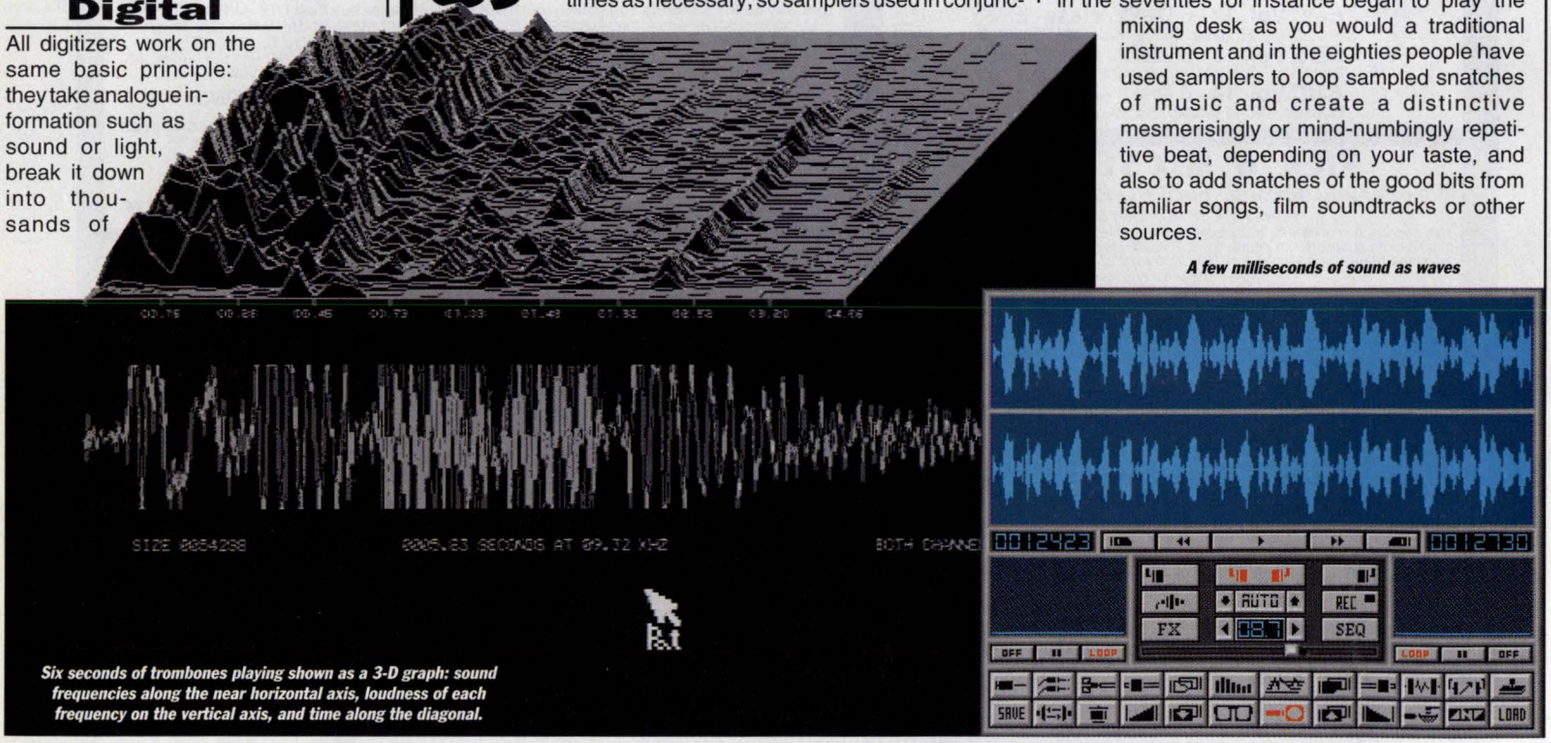
Analogue to Digital

All digitizers work on the same basic principle: they take analogue information such as sound or light, break it down into thousands of

SAMPLING

Digital samplers have had a big impact on the music industry in recent years. Just as in the fifties the sound of the new electrically amplified guitar gave a distinctive character to the music of the age and in the early seventies the advent of new multi-track tape recorders completely changed the sound of the music of the time, giving it a much smoother, more "produced" sound, since each individual part could be overdubbed as many times as necessary; so samplers used in conjunction with sequencers have given much of the pop music of the eighties and nineties a characteristic ultra-produced, super-smooth sometimes slightly sterile sound, as now not only can tracks be re-recorded but the individual notes and instrument sounds can also be tweaked and refined.

Some musicians treat the new technology as effectively a new instrument and use it in this way. So some disco and reggae music producers in the seventies for instance began to 'play' the mixing desk as you would a traditional instrument and in the eighties people have used samplers to loop sampled snatches of music and create a distinctive mesmerisingly or mind-numbingly repetitive beat, depending on your taste, and also to add snatches of the good bits from familiar songs, film soundtracks or other sources.



A few milliseconds of sound as waves

Six seconds of trombones playing shown as a 3-D graph: sound frequencies along the near horizontal axis, loudness of each frequency on the vertical axis, and time along the diagonal.



A hand-scanner caught in the act.

tiny parts and then give each part a numeric value. The computer can then take these millions of numbers and reconstruct the original image or sound. Once they are in the computer's memory as numbers, the computer can then also perform all tricks with them that it can do with any other piece of digital information.

Sound Samplers

A sound sampler takes sound, breaks it down into tiny split-second periods, less than one ten-thousandth of a second long, and then gives each period a binary numeric value which can be stored in computer memory. Sound can be thought of as shaking air; tiny hairs inside the ear are moved by different frequencies of sound and these hairs are linked to nerves which lead into the brain. Shaking of the air can be turned into fluctuations of an electrical current with a microphone: the air moves a magnet lightly suspended in a coil of wire, which induces a current in the wire proportional to the magnet's movement.

To turn this current back into sound the current is amplified and passed through a coil of wire in a speaker, which induces a magnet at the back of a speaker cone to vibrate, shaking the surrounding air.

Digital Sound

To sample sound, the sampler takes the current from a microphone (or other source) and every fraction of a second measures the level of the current and converts it into a number, for instance a value from 0 to 256, which can be stored as binary digits in RAM or on disk. On the Amiga, most samplers measure the electrical current anything up to 50,000 times per second (50KHz), storing an 8-bit value (0 to 256) each time.

Higher quality, CD-quality samplers store the level of electric current as 16 bit values (0 to 65560). So perhaps a one second sample of someone saying 'Come on', sampled at 44KHz with an 8-bit sampler would be stored as 44,000 x 8 bits = 44 Kilobytes. To replay digital sound this binary information is fed through a digital-to-analogue converter which converts it back into analogue electrical current that can be heard via an amplifier and speakers.

The advantage of having the sound in binary digital form in the computer is that it is then very easy to manipulate it. You can cut chunks out and paste them elsewhere, reverse, stretch, squeeze and mix pieces of sound as well as add any number of digital special effects like reverb, echo, phasing, chorus and others.

Scanners

Scanners are effectively light samplers, which convert analogue pictures into digital images which can be stored on a computer. Just as a sound sampler breaks a sound down into tiny split-second periods of time, so a scanner breaks a continuous image down into miniscule areas a fraction of a millimetre square. A light-sensitive scanning head then senses how bright the light reflected off each of these tiny areas is, creating an electrical current proportional to the brightnesses, which can be converted into a binary values and stored on the computer.

CCD

Scanners come in three main varieties, the flat-bed, the sheet-feeder and the hand-scanner. These three differ significantly only in the mechanism they use to move the light-sensitive scanning head over the image. In a flat-bed the head moves under the image; in a sheet-feeder the picture is moved automatically past a stationary head, while with a hand-scanner your hand does the job of steadily moving the head over the picture.

All three kinds work by shining bright white light on a single dot-size piece of the image at a time and focusing the reflected light onto a 'charge couple device' light-sensor (CCD) which emits a current proportional to the brightness of light it is exposed to. This current level is then converted into a binary value and stored in RAM or disk. By repeating this process for every tiny piece of the picture the whole image can be digitised, stored in computer memory and reconstructed and reproduced at will on a VDU or printer.

DPI

How big each scanned 'dot' of the image is depends on the scanner and the quality of image required. Most scanners are controlled via software which lets you adjust the resolution or 'Dots-Per-Inch' (DPI) and the maximum varies from a couple of hundred DPI on a basic hand-scanner up to ten thousand DPI for a top-end flat-bed. The higher the DPI the smaller the dot-size and the better quality the image, but more digitised dots then have to be stored in memory.



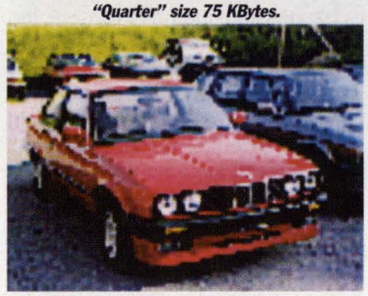
"Full" size 1.2 MegaBytes.



"Half" size 300 KBytes.



"Quarter" size 75 KBytes.



"Eighth" size 19 KBytes.

The one thing you soon learn using a scanner is that images hog memory, gobbling up a megabyte before you can say passport size photograph. For instance you might want to get an 8-bit grey-scale digitised image of a 4 inch by 5 inch picture with an 8-bit brightness value or 256 possible shades of grey for each dot. At 350 DPI, which is a decent resolution for everyday purposes, it would take 8 bits x 350 DPI x 350 DPI x 20 square inches. That means it would take over 2 megabytes, and that's just in black and white!

If you want to zoom in on the image at all the resolution should be even higher and to scan in colour generally takes three times as much memory again, so for serious scanning your Amiga really needs to be packing several megs of RAM at minimum.

Colour Scanning

Colour scanning relies on the principle that a colour picture can be built up out of three monochrome images in the primary colours red, green and blue. Superimposing these three images gives the impression of the original full-colour picture.

If you took three photographs of a scene from the same spot, using a red, green and blue filter each time, and then used three slide projectors to show the three images together on a screen, you'd get a full-colour picture. This is roughly how colour film is made, by using three chemicals which are each sensitive to a different primary coloured light.

In the case of the colour scanner the image is scanned three times with a different colour filter (red, green and blue) over the light sensor each time. The brightness levels for each of the three scans are stored in the computer in much the same way as for three grey-scale images, with anything up to 8-bit values per scan per pixel.

So high quality '24-bit' colour scans store three sets of eight bit brightness information per dot, 8 bits per primary colour. On RGB monitors this information is particularly convenient for display because each set of bits can directly control each of the red, green and blue electron guns in the monitor.

Digital Effects

Just as with sound sampling, one of the advantages of image scanning is the range of digital effects which then become available, pieces of an image can be cut, pasted, flipped and otherwise manipulated and also special effects can be added like colour changing, morphing, smearing and rotoscoping among many others.

Digitisers

Continued



Still Video

Some manufacturers - Canon for istance - have combined the image registering part of a video-camera with a real-time image grabber and digitiser to produce what is effectively a digital camera. When you click the shutter instead of light-sensitive film an array of electronic light sensors registers the image coming through the lens. The electric current they output is digitised and then stored on an internal floppy disk.

Anything upto fifty 24-bit hi-res colour images can be stored on one of Canon's specially designed removable internal floppies, and the images can be viewed by just connecting the camera to any monitor or TV. If you have an Amiga with a digitiser like V-Lab these images can then be imported directly as 24-bit IFF files. See the information on Canon's recent still video developments in this issue.

Video Digitisers

Video cameras work along similar lines to scanners except they use a lens to focus external light onto an array of CCD light-sensors which can register a complete picture of thousands of pixels, dozens of times per second. Video digitisers normally come as small boxes of chips which plug into the parallel port on the back of the Amiga 500, 600 and 1200 or chip-encrusted cards which fit into the Zorro slots on the 2000, 3000 and 4000 and take as input the CCD signal output from the video camera.

The electronic chips on the digitisers take this analogue CCD current, convert it into a series of binary values and organise this binary information into an image format which the computer can handle, typically IFF, JPEG or another Amiga user-friendly standard.

This conversion process takes time and with slower digitisers, by the time they are part-way through converting one frame's worth of video information, the video camera is already outputting the next frame. So to obtain a complete picture the image in the lens of the video camera has to be completely still. On faster 'real-time' digitisers though, like Rombo's Vidi 24RT for example, the electronics can handle a frame of video as fast as the camera outputs it, so they can grab still images from live moving video.

Full Motion Video

Even though a digitizer might be able to grab a whole frame of video before it changes from the video camera, the complete processing of that image information into a form the computer can display normally takes additional time. So digitising full-motion video in real-time is complicated.

The sheer amount of information which has to be stored to record dozens of frames per second of video is often prohibitive and full motion video digitisers currently available for the Amiga like VideoMaster have to make sacrifices: having grey-scale, quarter screen video only, for instance, to be able to squeeze all the necessary information through the Amiga's beleagured chipset.

Currently the best way of shrinking full-screen full motion colour digitised video information down to a size the Amiga can handle is the MPEG system of video compression. This is what the CD32 Full Motion Video (FMV) cartridge uses for instance to show VHS quality feature films from CD on ytheAmiga CD 32. Unfortunately there is no video digitiser yet available which uses MPEG compression to record video, existing hardware can only play it back. For the moment Amiga-using video enthusiasts can only watch and pray.

Digital Network

Until the 1970's communications technology like telephones, radio and television all used electric currents in cables or electro-magnetic waves in the air to carry speech, sound and images over long distances. The sound vibrations in the air or the fluctuations in brightness of pixels in the TV images were converted into a proportionally changing or 'analogue' electric current for transmission.

Then in the 70's new computers started to need a way of transmitting pure digital information. Modems (MOdulator-DEModulators) 'modulate' digital information, that is, convert it into analogue electric current which is then turned into sound and broadcast down a phone line. A modem at the other end demodulates the sound converting it back into digital information.

Unfortunately the limited range of sound frequencies which a telephone can handle and the level of interference on the line severely restrict the amount of information that can be carried. Even the latest modems can still only transmit about 2 Kilobytes per second. This is acceptable for sending text files of a few dozen K, but good quality digitised sound and images can often take up several megabytes and are laboriously slow to send via modem.

Scanning the Horizon

Gradually though around the world the old telephone networks are being superceded by new high-capacity copper and very high capacity fibre-optic cables laid by telecom and cable TV companies. These new cables along with the advent of digital telephone exchanges mean that digital pulses can be sent directly to any point in the network without the need for modulation, so digital information can be transmitted much more efficiently. Already the Integrated Services Digital Network (ISDN) is available in Britain offering several times the old data transfer rate, and some cable companies are set to offer even faster transmission, so the power to communicate digitised sound and vision rapidly over long distances might soon be available to millions of people.

If and when this happens, digitisers could quickly become a part of everyday life. Already many mobile phones contain what are in effect sound samplers to digitise speech and the rudimentary video-phones which are available all contain video digitisers. As, increasingly, speech, sound and images have to be put into digital form before they can be communicated over any distance, these boxes of electronic chips with the weird power to turn people into numbers offer a sample of a an expanding and exciting digital future. AUI

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THE PD STAKEOUT

Scoring

The PD disks reviewed in this issue were tested on an A500 with Kickstart 1.3. Please check with your PD supplier that the disks you are ordering are compatible with your Amiga. Amiga Plus, 600, or 1200 owners should be aware that roughly half of the software in the public domain will not work with Kickstart 2 or 3. Always ask first.

Compatibility

The marks awarded to each PD disk are based purely upon its own merits and, of course, our personal views. Value for money and reliability are also taken into account as well as features and quality of the software.

PD or ShareWare?

All freely distributable software comes under the rather deceiving umbrella of "public domain". Quite a lot of this software is, in fact, shareware. Shareware means that if you like the software, or use it regularly, the author will request a reasonable donation from £5 to £20. There is usually a note on the disk informing you if the software is shareware or regular PD. Whether or not you send a donation to the author depends totally upon your level of conscience and morals. Remember, if you send a donation to the author, you may receive an updated version of the software. Even if you don't receive an update, you will have given the author the incentive to continue contributing into the public domain.

Sentinel

CLG 56
NBS



Those of you who were expecting to see the 8 bit classic converted onto the Amiga will be disappointed. This is an action adventure game which looks like it was made by Psygnosis. In fact it appears that they have taken certain elements from Shadow of The Beast and blatantly copied the ideas. For example, when you die you get a similar death screen of your skull lying on the ground.

The in game graphics are also very similar right down to the main character which looks like The Alien from the film.

The gameplay is quite good but, of course, nowhere near as good as the commercial release although I have seen a lot worse at higher prices.

75%



Suicide Man 3

Disk 3098 17 Bit

The author of this animation is a right sick little monkey. The frightening thing about this disk is that it must be popular because this is the third animation he has created.

Suicide Man is a type of stunt man who kills himself in front of a crowd. I don't know how he did it in the previous two, but in the third he takes a running jump from a tall platform while at the same time wrapping a rope around his head. Let's just say the result is not pleasant. In fact this animation could be deemed a video nasty and banned, but as it is not real, I don't think people can do much about it.

It has been given an 18 certificate or is that the IQ level you need? I don't know. One to avoid if you are in any way squeamish.

55%

Small is Beautiful



Roberta Smith

This two disk compilation contains a collection of small demos. There are thirty altogether and vary in quality. Unfortunately, there are few new effects. They all contain the usual vector graphics and danceable tunes but it does make you wonder how the people who made them ever managed to squeeze all the information into just 30-40K.

The only really negative point about this collection is that in many of the demos you cannot escape and this causes iritation. You will have to reboot and before you get to the selection screen sit through a sound sample which I think came from an episode of Doctor Who. This is the only poor aspect in an otherwise first rate compilation.

86%



Steel Devils

Disk RGA 075 Roberta Smith

If you enjoyed the game Tanx which was on one of our previous coverdisks, you will love this game. Instead of Tanks you control a small robot which sprints around the screen at high speed. The object is to kill your opponent who is desperately trying to do the same back to you.

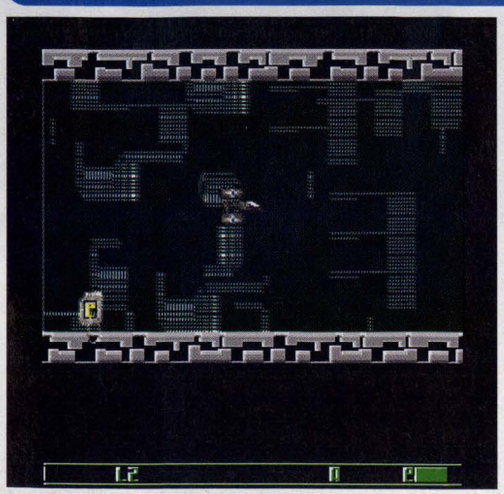
Various icons appear on the game area. These include small and large missiles, and lasers but my favourite is the land mine. These are laid down and are invisible. You also have to be careful as if you forget where you laid them, boom!

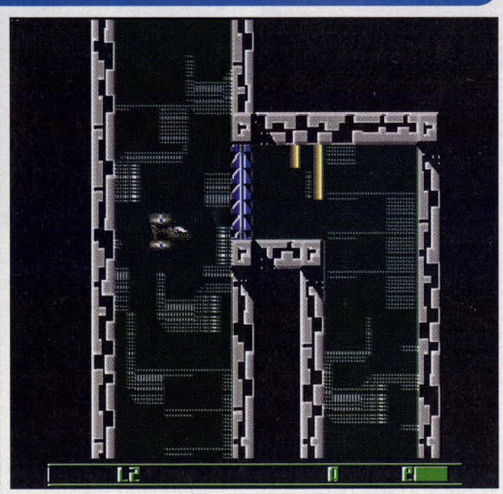
There is also an invisibility icon which is fun because you can sneak up on the other player and riddle him with bullets before he can react.

Steel Devils is well programed and contains some cleverly created graphics and sound. The only bad thing to say about it is that it is perhaps a little simple and a lot of people will get bored or have seen it all before, but what it does, it does well.

78%

TMA





Howard Wilsher

There is a lot of good software around programmed with Blitz Basic II. The author was a great fan of ZX Spectrum arcade games, especially those written by Ultimate. He noticed there was a lack of these "non-linear" games on the Amiga and decided to make his own. By "non-linear" I think he means the way the game is played. In most Amiga Arcade games in which you control a space ship or humanoid character, the screen scrolls along behind you. In TMA and most ZX Spectrum games, if you move off the screen to the right, the screen will immediatlely change and you will be on the left.

The object of the game is to guide your ship through the various zones collecting power crystals and avoiding the aliens. Unfortunately, this is an unregistered version of the game and features a shareware message after each game which is annoying. Rightly so, because if you don't register the game you will probably end up destroying it in frustration.

80%

Attention



Disk RGA071 Roberta Smith

Attention is a very simple game to play and is highly addictive. I remember playing exactly the same game with a pack of cards. All you have to do is click on two squares in a rack of many others and try to uncover two pictures that match. If you match two up correctly you score a point.

There are 5 other games on this disk which are variations of concentration but like a lot of shareware nowadays, if you want a full working version you will have to register it. In this case, you already have the full version, a code sheet is all that is needed to unlock the full program. This a rather silly idea as you will have to put the code in every time you load it. Other programmers will send you another version which actually works.

MT-COPY

Disk U1099 KEW=II

This seems a very useful program at first but as you use it, it becomes quite a pain. The initial idea is a good one, a disk copier that stays resident in memory and can be called upon at any time. It stays as an icon in the top left hand corner of your screen and to activate you just click on it. The program is about 200K and is too big to have in memory on a standard A1200, or indeed on any machine for that matter.

Multitasking is not its only skill. It would be a useful program for small PD companies as it allows up to seven disk drives using additional hardware. Taking a RAM drive as the source, you can make 7 copies in 37 seconds, that means you can make about 400 copies an hour! It really lives up to its name by being able to perform up to 9 operations simultaneously and is also easy to use, and has a very nice front end.

70%

Assassins 173



Roberta Smith

It is amazing to think that those Assassins games people have released 173 PD games disks. If Amos did not exist I think the number would be a quarter of what it is now. The compilations do vary in quality but this is a particularly good one.

The first game is Taskforce which we reviewed a few months ago. Ork Attack is a rather violent, bloodthirsty game in which you, a knight, have to defend your castle from the seemingly never ending onslaught of Orks from below. You can kill in two ways. Dropping rocks on them is effective enough, but not if there is more than one trying to climb the walls. It is then time to whip out your sword. A quick slash here and there and the limbs soon come off. There is even a lovely green and red stain on the walls to remind other Orks who's the boss.

After the savagery of Ork Attack it is time to calm down with Pop Quiz, the last game on the disk. There are 100 questions on various aspects of popular music for you to answer. The answering system it uses is quite annoying as if you get one question wrong you go back to the beginning again, infuriating and unnecessary!

NIGHTSKY V1.8



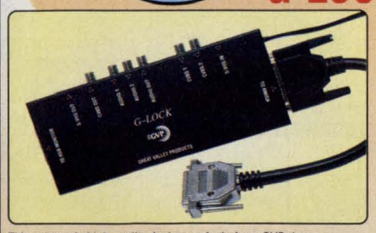
Almost everybody at some point has pointed up at the sky at a certain star and wondered what it was called. Well, this program will tell you. You can enter any date on any year, and also the longitude and latitude. The screen is then lit up with a multitude of stars. You can click on most of them and you will be told its name, and various other information about it. The area of the sky is bigger than your monitor screen, and you can move around smoothly using the mouse.

There are lots of features available. One of the most interesting is Track. You can select from any of the planets and a line will be drawn on the screen indicating the path it will take across the sky during the night. There are over 1500 stars plus the Sun, Moon, and planets can be displayed. Night Sky is very easy to use and works well.

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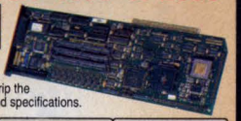
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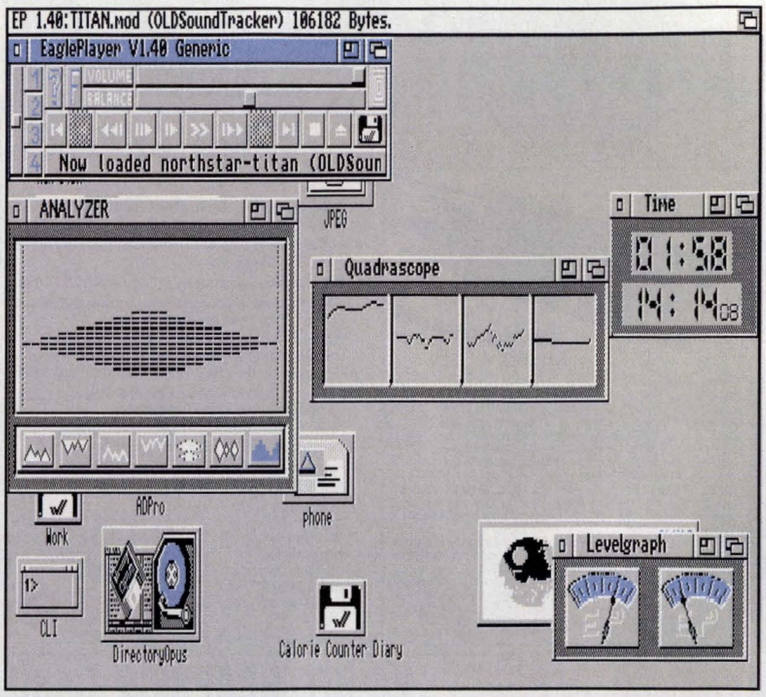
Disk MUS091
Roberta Smith

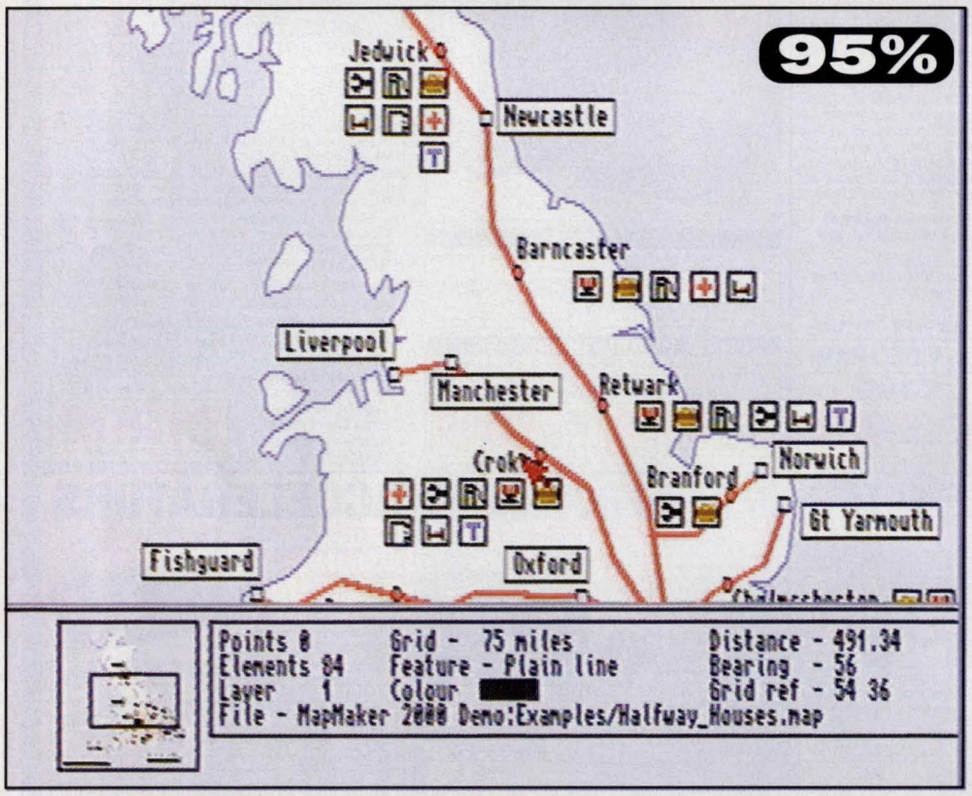
This has to be the top sound module player, there can be nothing to better it. It can handle 84 different music formats, I didn't even know there were that many. Some of the formats I do recognise as Amiga musicians, David Whittiaker, and Rob Hubbard. These geniuses in the field of Amiga and C64 music obviously had their own music formats.

Eagle Player does take up a lot of memory as it loads all the players into memory, and on a standard A1200 with no extra memory, large modules will no longer load.

There are a number of different sound analysers that also load with the program and are displayed in seperate windows. These are useless and really only show pretty patterns when the music plays and I am sure they take up a lot of memory. They do, however, make the whole program look impressive and do show it off. This is a must for every Amiga owner who enjoys Amiga music.

95%





MAPMAKER 2000

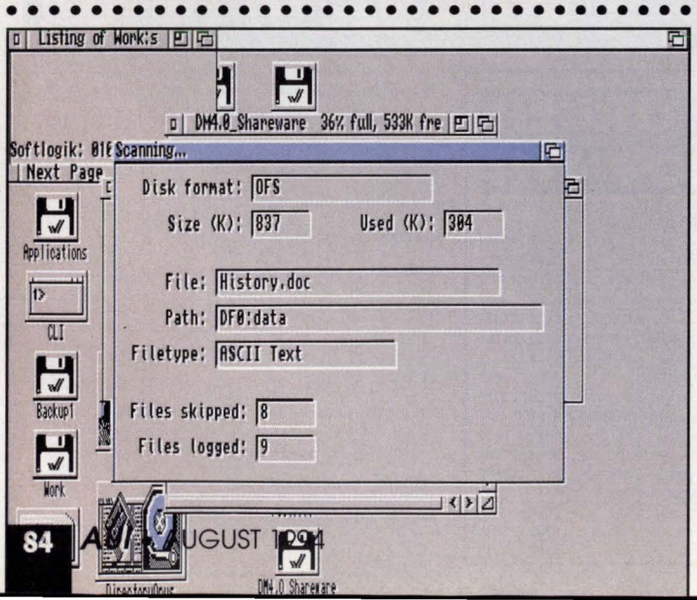
Disk D1060 KEW=II

This is, as far as I know the only map making program that exists on the Amiga, and is very easy to use. The program is written is AMOS and uses a combination of Icons and menus to good effect. There are three screens which bring you all the information you need. Firstly there is the main mapping screen on which all the editing is done. A grid can be overlayed onto it so you know where you are.

Secondly there is the status screen which tells you about everything that you are doing, any error messages, and general info about your map. Lastly there is the Key screen which can be viewed at any time. This is just like the Key on a real map and shows you what everything on you map means.

On the Infoscreen, there is a representation of your map with a small box around the area on which you are currently working. This box can be moved around, and the main screen goes smoothly with it.

You need not only use this program for making maps, it can be used to design anything from landscape gardens to blueprints of your own house. The one I reviewed was a demo version which had the save function disabled. If you want the full version it will cost you £15



DiskManager 3.99

Disk BUI45
Roberta Smith

79%

Not everyone will find DiskManager useful. It is a disk cataloguing program which means that if you are like me with thousands of disks lying around and would like some way of keeping track of them, you will need a day or two spare to use it. This is because all the disks you have have to be fed into it one by one. DM then builds up a comprehensive database of all the files on all your disks. It also remembers how the disk was formatted and how full it is.

A couple of months now pass you now want to find a particular file. No problem, just boot up DM and select the search option. It will even find file patterns or even files of a certain size. The version supplied is 3.99 and is unregistered. The full version is 4.0 and can be registered for £10.

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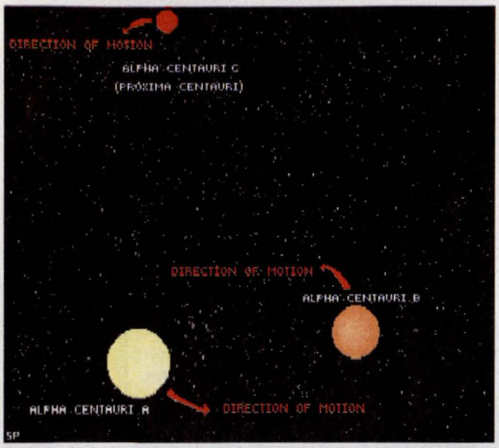
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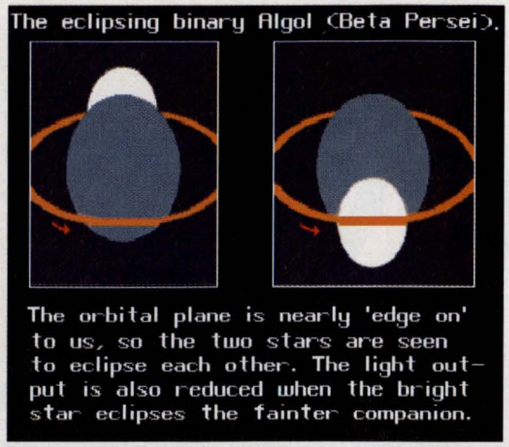
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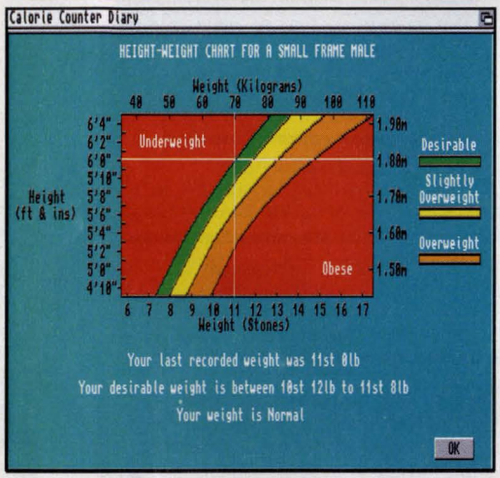
This well reserched Hyperbook presentation will tell almost everything you will ever want to know about stars and galaxies. It is a three disk set and two of the disks are images. There are over 60 pictures and diagrams scattered throughout. These are of reasonable quality considering the amount of colours used, but the galaxies would look wonderful if they were to be in AGA.

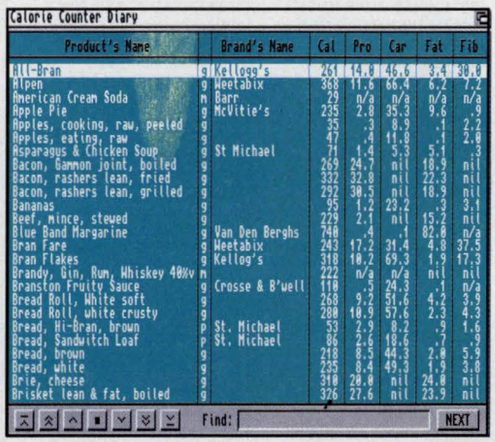
The text is interesting to read and I learned quite a bit from it. For example, did you know that the space between galaxies is called intergalactic space and is so empty that there is an average of only one atom per 10 cubic metres? Of course you did, but I didn't. Amazing stuff, but some people may get the urge to fall into a coma at reading this type of material. I however found it facinating, but then my head is in the clouds a lot of the time, so I'm told when I forget to use the spellchecjer on my artcles.

86%

Calorie Counter

John J. Cassar





You don't have to be an overweight slob to have this program. It is to be used by anyone, dieting or not, who wants to keep a calorie controlled diet. If you are not sure if you are overweight then what you do is simply enter your weight, height, build, and the computer displays a helpful chart showing you where abouts on the weight scale you are.

This program is not a miracle cure for fat people. You will not see the weight come flying off. It simply helps your diet by presenting you with a easy to use sytem of keeping count of the calories.

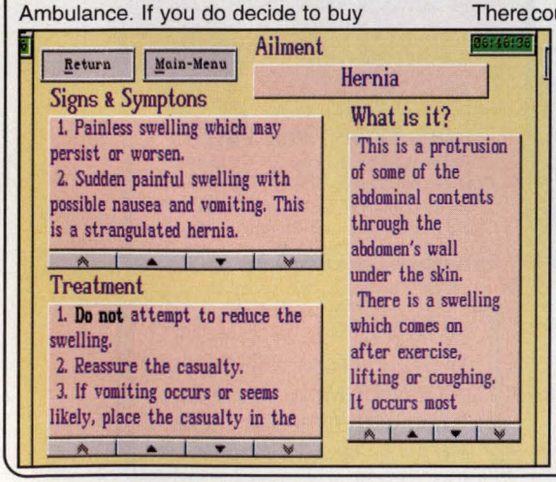
When you select the Diary section you are given a list of foods with the amount of calories, fat, and fibre, each of them has. The list is considerable and just reading it will make you hungry, but it is very useful. Even if you are not overweight, CC will help you keep track of the calories and help you maintain a healthy diet.

84%

First Aid Essentials

Gerard Fitzpatrick

It may sound corny but a disk like this can save lives. The author decided to write it to help his son who was doing a First Aid course with the St John's Ambulance. If you do decide to buy this disk then it is a good idea to read it all staight away you get it and not to put it away thinking that it will come in useful one day.



There could be nothing worse than your Grandmother choking on something and you saying "Hang on while I boot up my Amiga and load that first aid disk I got, that will tell me what to do". The program Helm was used to display all the text and pictures and it does the job quite well.

80%

Contacts for PD reviewed in this issue.

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PROGRAMMING TIPS

This month Paul Overaa looks at three important 'standard' approaches which most established C programmers use on all machines.

When programs become larger they tend to get split into separate modules which carry out well defined jobs. This division certainly makes the coding easier in each particular module, but unfortunately at the same time it introduces some 'program organisation' complexity issues that can, if you're not careful, cause other problems.

There is the problem of defining and declaring variables. With the C language one program module can use variables declared in other modules providing an 'extern' reference is included (this lets the compiler know that the variable is declared elsewhere). Variables must, of course, be declared normally in just one file (so that memory can be allocated for storage) but there is a sneaky #ifdef C pre-processor trick available that lets you use the same header file for both declaring and externally referencing a set of variables.

The fragment shown in listing 1, for example, will only generate the extern reference if ALLOCATE_GLOBALS is NOT defined. By defining this value at the start of just one of the file modules all the necessary variables are declared and all other modules end up with the extern form statements as is needed. The benefit? A single file serves both declaration and external referencing purposes and this makes for substantially easier file maintainence.

The second issue concerns the avoiding of masses of 'magic numbers' embedded in the code. C's preprocessor facilities can be used to create header files that contain definitions of important constant items. This both aids source code readability and makes it easier to update values used across any number of files. Listing 2 gives one example where this has been done.

The third area of program file management interest is related to how multiple module programs are physically put together. Large programs tend to be formed from a collection of independently programed object code modules which handle things like resource allocation, the Intuition interface and display code, and so on. Perhaps a separate file holding image structures will also be used.

If the source code related to any one of these modules is updated (due to enhancements or bug fixes) then not only does that particular module need to be recompiled but it must be re-linked with the already existing unchanged modules in order to produce the new version of the program. C Compilers provide 'Make' utilities which allow such file dependencies to be specified and the SAS C offering is called 'Smake'. In (most) simple cases a make file script line consists of a target file name followed by the names of any files upon whose contents it is dependent. Following this, on the next line, come the actions that should be carried out when one of those dependent files change. In the example shown in listing 3 a change to the miditest.c file (see second target file line from the bottom) would cause miditest.c to be recompiled to produce a new miditest.o file that in turn triggers the re-linking of the MidiTest program. The benefit of the utilities which allow make files to be used is that once the required definitions are set up the programmer never has to think about what files have to be remade when things get changed. You, the programmer, make your desired changes... and the 'make' utility automatically compiles just those files that are needed and re-links all the files to provide a new version of the project. Needless to say 'make' files become even more important as projects get larger! ***AUI***

```
#ifdef ALLOCATE_GLOBALS
    #define PREFIX
 #else
     #define PREFIX extern
#endif

PREFIX void (*g_function)();

PREFIX STACK *g_resource_stack_p;

PREFIX struct  IntuitionBase   *IntuitionBase;

PREFIX struct  GfxBase         *GfxBase;

PREFIX struct  Library         *GadToolsBase;

PREFIX struct  Library         *AslBase;
```

Listing 1: Variable declarations and external referencing done the easy way!

```
#define SMALL_OFFSET    4

#define BIG_OFFSET      20

#define LINEPOS1        210

#define LINEPOS2        24

#define LINEPOS3        170


#define                         BOXLINEPOS1
LINEPOS1+SMALL_OFFSET

#define                         BOXLINEPOS2
LINEPOS2+SMALL_OFFSET

#define                         BOXLINEPOS3
LINEPOS3+BIG_OFFSET
```

Listing 2: Part of a display_position header file used to specify particular areas of a program's window display. Because the numerical values are all in one place any changes made here will automatically get used in any program module that uses one of these constants.

```
#
=============================================

# MidiTest smake file

# ---------------------------------------------
-------------------------


MidiTest: allocator.o amiga.o miditest.o images.o
  sc:c/slink FROM LIB:c.o "allocator.o" "amiga.o"
\
  "miditest.o" "stack_adt.o" "images.o" \
  TO MidiTest LIB LIB:sc.lib+LIB:amiga.lib

allocator.o: allocator.c display_position.h
general.h prototypes.h
  sc:c/sc allocator.c

amiga.o:  amiga.c amiga.h display_position.h
general.h prototypes.h
  sc:c/sc amiga.c

miditest.o: miditest.c display_position.h general.h
prototypes.h
  sc:c/sc miditest.c

images.o:  images.c
  sc:c/sc images.c

#
=============================================
```

Listing 3: Makefiles like these can automatically control all program compiling and linking operations.

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ARexx INFO

Don't lose control.....

This month Paul Overaa offers some advice on how to avoid losing "Understandability"

Almost all ARexx programs have to do a certain amount of I/O (input-output) related operations and whether you are interacting with the Shell or anything else the chances are that you will find an occasional need to transmit strange series of characters or numbers to produce a certain effect. You might, for example, want to write inverse video text to a CON: or RAW: window.

The characters and numbers used to perform this sort of display switching tricks are collectively known as 'control sequences' and they all have one thing in common: the bare-bones numbers or characters tend to imply little or nothing about the operation being performed. What, for instance, do you think that the following ARexx examples do?

```
call Writeln(rw, '9b'x||'37'x||'6d'x )

call Writeln(rw, '1b'x||'63'x)
```

Believe it or not the first example turns on a Shell window inverse video display and the second example clears the display completely - but you wouldn't realise it by looking at the code. Embedding control data in this way is a well known way to make your programs difficult to port and difficult to maintain. The solution is to isolate this type of control data in a way that makes it understandable, accessible and flexible - that way it will be easy to change should the need arise!

"Understandability" is easy to introduce - just give control sequences understandable mnemonics or names and make a point of defining commonly needed items separately so that these can be used in subsequent definitions. For instance in an ARexx program you might define the Linefeed, the Control Sequence Introducer (CSI) and the Escape character in this fashion:

```
LF = '0A'x

CSI = '9b'x

ESCAPE = '1b'x
```

The existence of these types of building blocks will make more complex definitions more understandable. Here for example are ARexx style control definitions that would be used to clear a Shell window and turn the inverse video effect on and off.

```
RESET = ESCAPE||'63'x /* clear the Shell window */

INVERSE_ON = CSI||'37'x||'6d'x /* inverse-video style command */

INVERSE_OFF = CSI||'30'x||'6d'x /* plain text style command */
```

How would you use them? Here's a couple of example error message definitions, you should notice that they leave the programmer in no doubt that the messages are being displayed in inverse video. That 'inherent clarity' is of course the whole point of the exercise.

```
NO_FILE = INVERSE_ON 'This File does not exist' INVERSE_OFF

INVALID_OPTION = INVERSE_ON ' Invalid Option - try again' INVERSE_OFF
```

These types of error or other prompt definitions should also be defined near the start of the program because this makes it easy to change them should the occasion arise. The really important benefit, however, and the purpose of creating such definitions in the first place, is that these symbolic definitions can be used within the main bulk of your code instead of using explicitly written control sequences. The result of this is simply that your code will become cleaner because it is uncluttered by messy looking, and usually incomprehensible, control data. As an example listing 1 gives an ARexx fragment containing explicit control sequences that clears a Shell window, and then either opens and reads a file or displays an error message in inverse video. Listing 2 shows the same fragment written to use the definitions we've discussed earlier. Needless to say most programmers would agree that the second version is eminently more readable. ***AUI***

```
call Writeln(raw_window, '1b'x||'63'x)
do
 call Open(source_file,filename$,'R')
 call DisplayFile()
 call Close(source_file)
end
else call Writeln(raw_window, '9b'x||'37'x||'6d'x
    'This File does not exist'
    '9b'x||'30'x||'6d'x)
```

Listing 1: An example of the wrong way to code control sequences

```
call Writeln(raw_window, RESET)
do
 call Open(source_file,filename$,'R')
 call DisplayFile()
 call Close(source_file)
end
else call Writeln(raw_window,NO_FILE)
```

Listing 2: This type of control sequence coding is easier to understand.



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K240

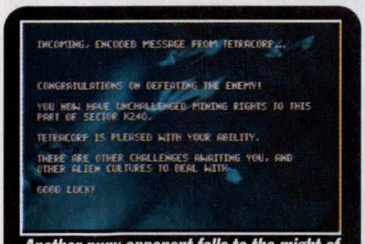
Gremlin 1 Meg £29.99

The standard and quantity of games has risen over the years so that nowadays, only once in a while (about every six months, actually) does a game come along that really does grab you.

K240 is the first game to have done this to me since Dune 2. The overriding thing which these two games have in common is the fact that I'm so addicted that I keep getting caught playing them instead of working! No, seriously, the playability (and I like to be careful with this word, not least because it's an invented computer-speak word) on these games is incredible.

Best described as a melange of Populus 2, Dune 2 and Civilisation, K240 has been in development for an age and when I first saw it it didn't amaze me. Perhaps a new category of game has sprung up - the arcade strategy game.

The plot revolves around the expanding empire that is standard to such games. Of course, other cultures have the same idea and, quite reasonably, need to be obliterated for their foolishness. (It's the Star Trek original, not The Next Generation philosophy: forget negotiations lest it be with a nuclear missile and a few warp drives.) The action takes place deep in space, in sector K240, where a group of mineral rich asteroids are waiting to be colonized for the good of the empire.



Another puny opponent falls to the might of my Empire.



Sci-Tek are more than willing to supply the necessary equipment.



You can choose the alien race that needs your attention.



A healthy asteroid beavers away producing the means to progress.

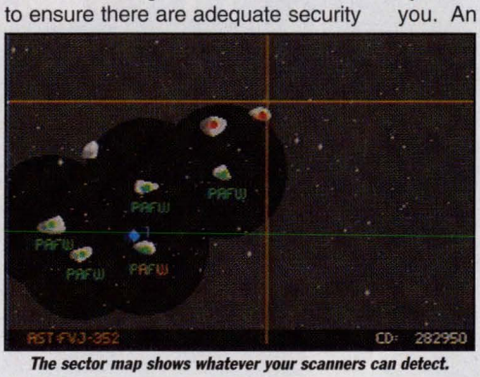
The main game is viewed in the same isometric style as Populus 2, with each screen depicting a separate asteroid. At the start, it's important to stabilize the asteroid and nurture the colony. They'll need power and facilities to get food, water and air. This costs money, which means they'll have to pay their way. Hence, they should do some work - get them mining. The minerals can then be sold to the empire and the colony starts to grow.

The colonists will start to get annoyed if things don't go their way and there isn't enough room. The answer is to ensure there are adequate security forces to keep them in line. Of course, they do need medical facilities and decontamination filters (to keep down radiation) or they will simply die.

Once it's stable, it is time to get on with conquest. Colonize any asteroids which the sensors detect and get them started in the same way as the original.

So far, it's just a case of choose the buildings and get them built. Now we need to advance a little. Blueprints for new weapons and better facilities can be bought and will be given to you by the imperial transport when it comes for the next shipment of minerals.

The upgrades consist of devices from advanced drill heads to Mega missiles, capable of destroying an asteroid. Once the essentials - better mines, better power supplies - are in place, you're ready to start constructing defences.



The sector map shows whatever your scanners can detect.

A comm-and centre, a landing pad, a weapons factory, a missile silo and a satellite silo are needed. A few spy satellites will keep an eye on the enemy for you. An arsenal of missiles is just the thing to soften up a target, but screen generators to provide a protective shield to you own buildings from attack are equally important. A couple of anti-missile pods and some defence turrets will make your asteroid reasonably safe.

Then, it's time to construct some attack ships, arm them with defences and good attack capabilities. Mix a fleet with ships equipped to deal with enemy fleets and ones for air to ground attacks. You may need to bring in the big guns, in which case and orbiting space station is needed. There you can build the big battle ships that can accommodate serious weaponry. He-he!

When everything is ready, launch your attack. Missiles bombard them (having a varying effect, depending on their defences) quickly followed by the fleet. If all goes well, you wipe the scum from the sector and leave it free for decent dictatorships to mine and exploit in peace.



It's time that we dropped a couple of bombs.

It all plays very well. The first level isn't too hard, but after that, you need to ensure you get things right.

There are six opponents to choose from, so the game isn't going to be easy to finish. It can be installed to hard disk and runs best like this, although there isn't too much disk swapping running from floppy. I experienced a few annoying crashes, which means I save the game quite regularly.

All in all, a great game. Unless you only like shoot 'em ups, I suppose. Certainly, it's got me hooked and entered my own personal Top Ten. Buy it!

I'm off to have another bash at the Ax-Zilanth scum that won't leave my sector alone...

VERDICT

Graphics:	80%
Sound:	80%
Gameplay:	94%
Overall:	93%

BENEATH A STEEL SKY

Virgin/Revolution £36.95 1 Meg

Hotfoot from their success with Lure of the Temptress, which established Revolution as a software company of repute, comes release number two, a cinematic adventure of epic proportions. Having started life stillborn with Mirrorsoft (thanks no doubt to a life on the ocean wave or two), Revolution didn't sink, but found a new home in the somewhat more pleasant surroundings of Virgin, where they were given plenty of support, not to mention money, to experiment further with their innovative 'virtual theatre' system. Lure of the Temptress was a fine opening shot, with a strong story line, excellent graphics and an intelligent parser system that went probably further than any adventure driver to date.

Steel Sky is a natural further development with absolutely no typing needed at all, just a mouse with a mountain of energy!

This game has a lot going for it, beginning with a plot rivalling Ludlum at his best. It is the future. The World is a very different place, with the lands beyond the cities inhabited by outcasts who have had to form tribes just to exist in safety.

After spending his childhood in the company of one tribe, who rescued him from the burning wreckage of a crashed helicopter, Robert Foster is abducted by brutal Security forces and brought back to Union City. Now a muscular adult, he watches helpless as his tribe is obliterated and all traces of his exiled existence are erased.

Luck prevails, however, as returning to the centre of the City, his captors' craft crashes and Foster escapes, hotly pursued by the security forces. He finds himself in a world of soaring tower blocks and polluted factories populated by workers under the rule of a mysterious company called LINC. He doesn't know why he was kidnapped, where he is or how he can get out. All he knows is somewhere, someone holds the key to the mystery and he needs to find some answers.

Revolution have blatantly borrowed ideas from other successful adventures and incorporated them into the plot, but hey, so what? if it works, may as well use it. The most obvious one is the character of Joey, a cute robot devoted to Foster and full of quick one line retorts, not to mention an invaluable source of help in overcoming certain puzzles. This character is a straight crib of Infocom's Floyd from Planetfall and then Stationfall. Floyd was the brilliant robot companion with the personality of an eight year old who broke all our hearts back in '87. Then we have the drop down/tuck away icon board reminiscent of the later Sierra adventures and then the lavish camera angled graphics pioneered by Lucasfilm.

Of course, this is all window dressing when compared to the real Revolution innovative Virtual Theatre system, which takes a lot of the foot slogging out of computer adventuring. Central to the system is the intelligent cursor which changes according to what it is pointing at. For instance it will highlight possible exits, or identify certain objects or people. Foster can also look through exits and describe what he sees in the room beyond, as well as command Joey to perform actions.

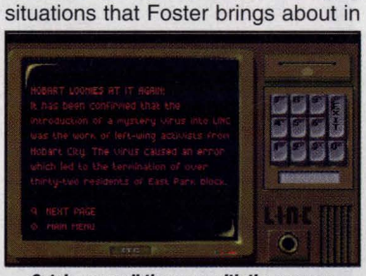


A sad end to a great career

The cursor will change shape to execute other actions such as using objects in your inventory, where it will change to an open hand. The interface has been designed to allow you to interact with all the characters and backgrounds simply by using a combination of mouse buttons.

The rest of Virtual Theatre concerns the characters in the game, whose Artificial Intel creates real people living out their miserable existence and react in real ways to the changing situations that Foster brings about in his quest for the truth.

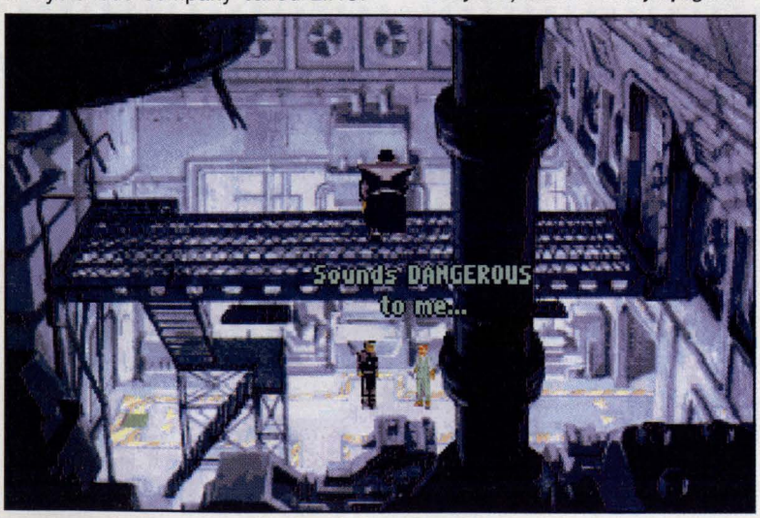
Beneath a Steel Sky is SIX times bigger than Temptress, and comes on a staggering FIFTEEN, yes, FIFTEEN DISKS and weighs in at over 35 quid, but do not be put off, because despite a hell of a lot of disk swapping, there is a great game to play out.



Catch up on all the news with the scanner.



Lovely Vista, but it ain't worth jumping for.



Escaping is just the start.

VERDICT

Graphics:	89%
Sound:	78%
Gameplay:	83%
Overall:	87%

THE LOGIC SHOP

saves Journalist from SUICIDE

With unprecedented compassion, The Logic Shop (0992 640050) moved swiftly to avert a personal crisis in my life. After many years of faithful service, putting up silently with even the most dire of software, my Amiga packed up.

Dear reader, you cannot even begin to imagine the horror that faced me, the sheer numbing terror of telling the distorted, foaming creature that is the Editor, that this simple scribe would have to miss *AUI*s press deadline. With an almost benign calmness those consumate Logic Chopping professionals took my stricken computer from my trembling hands, not listening to my gibbering, and nursed it back to health in no time at all.

For this you have my undying thanks. In some small repayment for the suicide-avoiding service they performed for me I am inscibing their name for ever in the Entertainment Now! Roll of Honour (Ham and Cheese Division).

Elfimania

Renegade 1 Meg £25.99



Rock and Roll, baby. You sure sorted him out!



Do you like my new stilettos?

Streetfighter 2 with pointy ears? For some reason the unique selling feature of this beat 'em up was deciding to have elves beating the hell out of each other. A sort of fantasy punch up. Lord of the Boxing Rings?

Don't misunderstand, Elfmania is a good game. One of the aspects of the game of which Renegade is proud is the loading system (OK, it's not the most exciting way to start a review) and I will say that they have managed to make it very fast compared to most other games. So, there's one compliment.

The game itself is a very well animated beat 'em up. Although the sprites are large, there are plenty of frames to each character and they move very well. They all enjoy showing off too, especially the girl who sings "Rock me" and headbangs!

To get going, you choose a character and then try and beat up the rest of the world. The fighting itself is easy to master and fun to play. The violence is quite light as far as these games go, making it a good choice for those who don't really want the little uns subjected to Mortal Kombat. This is one of the best punch ups to appear and should compete well with Body Blows.

VERDICT

Graphics:	91%
Sound:	83%
Gameplay:	84%
Overall:	85%

Arcade Pool



Should I make a 'playing with balls' pun?

Another sports sim from Team 17. I admit I'm dubious about their upcoming King Pin, a ten pin bowling sim, but this is great, especially for a tenner.

There have been quite a few pool sims on the Amiga and some have been fair, but none has been the ultimate and I'm not about to say this one is either.

Arcade Pool makes no pretences and isn't dressed up at all. It's a pool game with all the options it needs and very good gameplay.

You can play tournaments or one on one matches. The options allow for UK and USA tables and all types of game up to the trick shot option for if you fancy mucking about. It's not easy and I kept getting beaten even against the novices for the first few times, but it's worth sticking with.

Another great idea at a good price from Team 17.

VERDICT

Graphics:	75%
Sound:	75%
Gameplay:	80%
Overall:	78%

Monopoly



All the players sat around the board. Wierd bunch.



Pulling up outside the station.

VERDICT

Graphics:	70%
Sound:	50%
Gameplay:	75%
Overall:	70%

Supervision 1 Meg £27.99

It's Monopoly. I don't think I'll explain the game, just talk about its conversion.

Firstly, it's nice to be able to play against the computer, because it can be hard to find people to play against sometimes, given the friction this game causes. The computer doesn't argue with you.

Unfortunately, I do think that the graphics, sprites, sounds and actual execution of the game could have been better. Rather a paradox here; a good game lumbered with a sticky front end.

The little counters shunt along lamely and the characters stand around the board, always in exactly the same position except for a few small anims they perform. To play a round takes a while too.

If you really love Monopoly and can't find anyone who's willing to play with you, then here's the relief you crave. Otherwise, tradition wins and the board on the carpet is a slightly more friendly way to play.

Valhalla and the Lord of Infinity

Vulcan Software 1 Meg £29.99

Here's a brave attack on the Amiga adventure world. A speech adventure, which will run from floppy (there are six) without disk swapping each level.

The plot involves the young prince out to avenge his father's death and regain his throne from his naughty uncle.

The puzzles are logical and solved by working your way around (although watch out for dodgy floors - the builders need firing - ready to collapse beneath you). This is all graphically represented and controlled by the joystick.

The sound, though, is the important thing. Every time you perform an action, the prince comments vocally. The samples are clear and his tone ranges from fear to annoyance. It's very well done.

I'm glad to see that my advice was heeded and that this game will be appearing on its ideal medium, the CD32. The sound could be even better.

Check it out.

VERDICT

Graphics:	83%
Sound:	95%
Gameplay:	79%
Overall:	85%

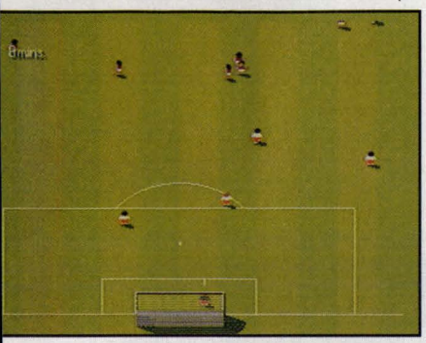
GAMES NEWS

There are four budget releases that need a quick mention this month.

Body Blows has been re-released by Team 17, a great beat 'em up for £12.99. It's tough going, but the graphics and sound make it fun. As you'd expect, the special moves and choice of characters are all here.

Sensible Soccer is cashing in on the World Cup with an International edition for all its fans. The last ever (or so they say) version of this cult game will be the Sensible World of Soccer later this year, but for the moment fans will have to make do with this. It's available for upgrade for only £8 from Renegade (071 481 8214) or for new players for a reasonable £19.99. You'll probably not see a better footie game this summer, although we can always hope.

The Hit Squad have two releases this month. Road Rash is a fun motorcycle sim that relies on arcade gameplay more than realism. Also out is The Games, based on, you guessed, the Olympic Games. There are loads of events and some good anims. A lot less strain than the real thing.



Yet another outing for this cult game.



Of course, nobody should ever fool around on a motorbike, but this is just a game, so who cares?

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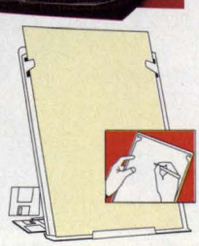
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DUNE

Hit Squad £14.99 1 Meg

The sequel to this game came high on all of our lists for the best games of last year. Dune, the original, is now a couple of years old, but has stood the test of time. When I first played Dune, I wasn't too excited and only came back to it a few months later. Suddenly, I was hooked. The film was pretty darn good, despite the fact it flopped and this game is quite true to the script as opposed to the original book. The characters are even modelled on the cast.

Anyway, to continue my tale, I was addicted and continued to play this gem until I completed it, which wasn't too long. I placed the box back on the shelf and waited until number two arrived. Dutifully, I played solidly at that (spurning mortal requirements such as food or sleep) until that too had been completed.

For the next few months I twiddled my thumbs and then, lo, Dune appears as a budget game. Great! I now have a wonderful excuse to spend my days at work playing it all over again! Which is exactly what I did. All over. I can't remember the last time that I was prepared to play a game through and then later go back and do it all again. Normally it's a case of finish it and chuck it.

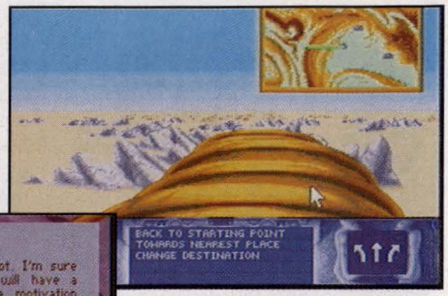
Dune is great. You take control of the main character, Paul, and help him win the confidence and support of the planet Dune's natives, the Fremen. With their help you can mine the spice Melange, the most valuable substance in the universe because it allows space travel, and thus gain control of the planet. As the film says, "He who controls the spice..."

If you continue to do well, the Fremen will also fight for you against the Harkonnen scum who are trying to overthrow you. The plot, however, thickens from here on and I'm not going to let too much else out.

Dune is controlled by the mouse and is as easy as it is fun. It runs best from hard disk, but then so do most games,. However, I used to play it from floppy and it didn't bother me too much. The graphics are still, but good and the music is eerie and well done.



Stilgar, you old dog! How are you?



I am the supreme being and to prove it, I'm riding a worm.

If you haven't played this and you fancy a conquest game, grab it. At fifteen quid, it's not overly cheap for a budget game, but you fork out much more for much less.

Are there any down sides? Yes, unfortunately. Dune is a pretty unstable game. It has a tendency to crash, which is a real pig. So save it as often as possible. If you're an A1200 user, the caches and the display will need altering.

VERDICT

Graphics:	82%
Sound:	78%
Gameplay:	90%
Overall:	86%

DENNIS

Ocean £24.95



Well, isn't this an exciting game? No.

It looks the same as the rest.

Yipes! Grab your trusty pea shooter and water pistol and rescue Margaret and Joey and recover Mr Wilson's coin collection before he finds out it missing. That's just about all there is to the story of Dennis the Computer Game, which is a standard jumping/collect coins platformer with little in the way of surprises to offer.

There are five levels to get through, each one with an end of level nastie to overcome. With no save option included in the game, I can't help feeling that somebody out there knows it's all too easy and if there was a save routine built in, we'd finish the damn game in five minutes. As it is it took all of that for me to lose interest in it entirely. Go see the film, it's cheaper.

VERDICT

Graphics:	60%
Sound:	56%
Gameplay:	45%
Overall:	57%

Mr Nutz

Ocean £24.95 1 Meg



Looking like a cool squirrel.

Bear with me. Ahem. Once upon a time there was a planet with nothing on it, but chickens. Intelligent ones though. Intelligent enough to realise that terrorising the galaxy is far more interesting than cooking Colonel Sanders again, so they did and duly arrived at Peanut Planet, the home of Mr Nutz. Now, Mr N is a local superhero squirrel who saves the world once or twice a year and today he is on holiday putting his claws up for a bit of R and R.

The chickens decide that now is the time of their discontent and take over Peanut World. Mr N of course has the job of making a clean breast of it all!

This is a game in the Zool/ Rainbow Islands mode. Loads of colour, lots of tunes and more than enough things in it to keep you busy for a while.

It switches between a straight jump and collect platformer, to a seek and search arcade adventure. Zool, I mean Nutz gets to open chests, which hold a variety of goodies, sail rafts, fly (whattt!! a squirrel??) and best of all jump on loads of chickens.

With four worlds to explore, Nature, Underground, Water and Inca, the traps get more difficult the further you get. And YES there is a save game option!

Nutz is a cute colourful romp that will certainly keep you amused on a rainy summers day.



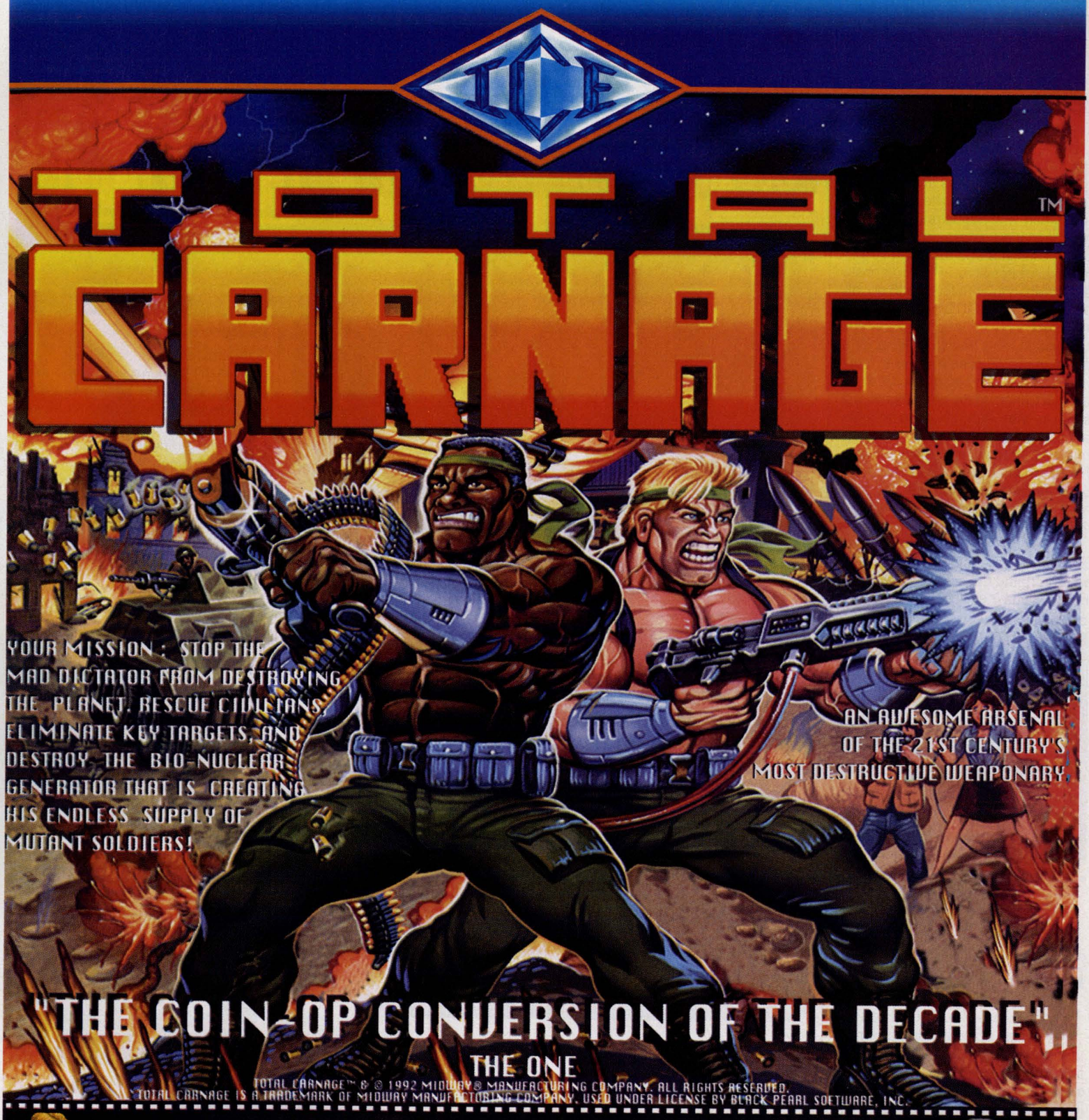
It's very familiar, it plays well and looks good.



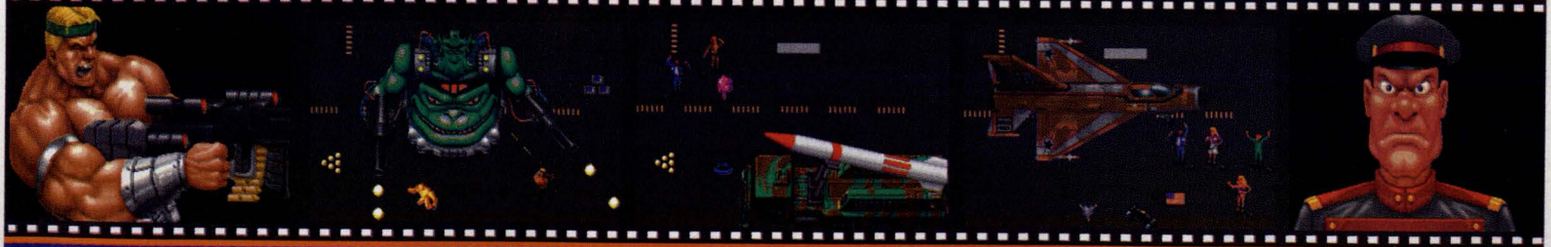
This is for all the Nintendo owners out there. Both of you. Ha-ha!

VERDICT

Graphics:	76%
Sound:	73%
Gameplay:	68%
Overall:	73%



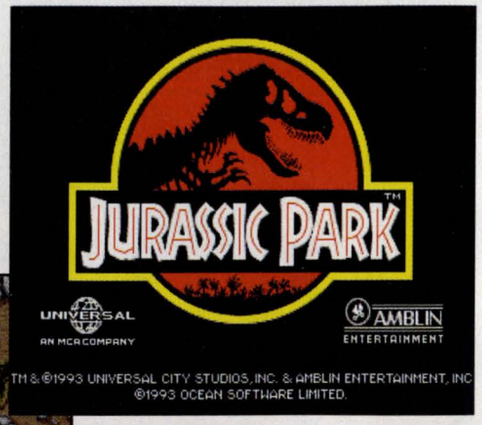
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Jurassic Park

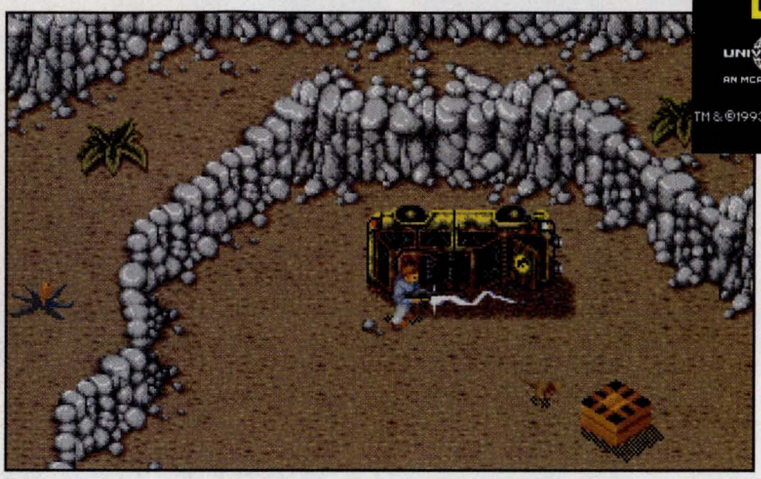
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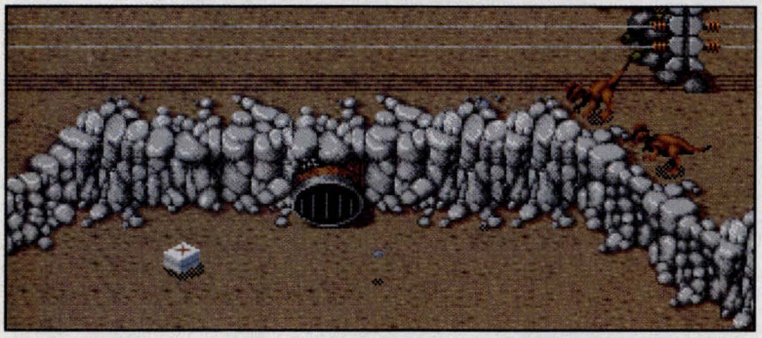
I might have known. Let's face it, Jurassic Park was probably THE biggest hyped movie of all time. I mean who hasn't read the book, got the stuffed dinosaur cushion and eaten prehistoric cereal? That's before you've used the T Rex toothpaste and listened to boulders crashing, after which...ENOUGH!!!!! START AGAIN!

I might have known. With such a great movie, Ocean's bosses must have been walking across water to be the first to sign up the game rights and sign up they did. Then he thought about a game to put with it. Make no mistake, JP looks absolutely brilliant, hundreds of colours, beautiful jungle scenery, great looking dinos and, and, YES???, and... not a lot else. No game. Zippo. Fut. Nada. Nicht.

It's basically a big maze to explore and collect items along the way. Dotted all around the complex are terminals that you must log onto in order to open up certain doors, show a map of the area and generally let you see what you have to do. Those of you good at puzzle games will take JP and crush it like a used peanut shell, because there is simply no challenge to the damn thing. The first level objective (rescuing the little girl and boy) goes quicker than one of Ben Elton's gags, because they are always in the same place each time you play and that's just cheap programming.



The laser is a handy weapon.



2 dinos for the taking.

The only saving grace in the game are the indoor texture mapped 3D scenes that are genuinely exciting, made even more so by the stirring soundtrack from the film. There you are in this 3D environment with the hallway stretching before you and your gun ready in front as you walk purposefully forwards... and then it hits you HARD. A huge slobbering man-eating vision from hell, jaws agape ready to take a huge bite out of your nearest fleshy bit.(No, it's not a polaroid of your girlfriend!) Oh the sense of fullfillment when a few blasts from your gun sends it to Dino heaven.

Cracking? Or crappy?

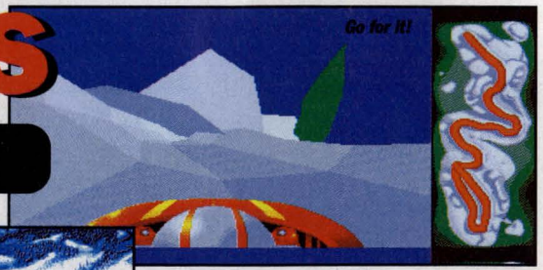
But get real, Ocean, this is but a side issue. The game cost you - and the punters - real money, so we all deserve something better than a tedious, tepid, monotonous turgid outer game wrapping up a great inner. We deserve a great game throughout.

VERDICT

Graphics:	92%
Sound:	90%
Gameplay:	32%
Overall:	67%

WINTER OLYMPICS

US Gold £24.95 1 Meg



The big boys from Brum really went for it when they zapped out this one. I remember attending the press launch and watching in stunned amazement as David Vine blew in stage right, dressed from head to toe in designer ski gear and covered in fake snow. He was supported by Wilf O'Reilly who promised much prior to the Games, but in the end came back medalless from Lillehammer. All was bright though at the time, Geoff Brown talking software, Vine just talking, Wilf admitting he knew nothing about computer games and not talking and auto cues and videos working overtime. Much was made of the Official Licence granted to US Gold to produce a computer game and everyone was very bullish indeed.

There was one thing that was nagging at me all through this though, haven't we seen Winter Olympics before? Was it my imagination or had US Gold not already released a game like this??? Epyx of course had a great version and as long ago as Intellivision days, I have been playing downhill slalom. Mentioning this blasphemy to Goldies on press launch day just brings hushed tones of 'Well this is THE official version of the Games and it's much better.'



No record this time.

The truth of the matter is that the sound fx are dire and there is nothing in this game that you haven't seen before. Some of the events are presented better, the ski jump looks very realistic, the bob in first person is slow but effective, the rest, apart from the window dressing of loading screens, is Epyx revisited.

Official or not, for me use the money to see Cool Runnings instead - you'll have more fun.

The line up for the bob.



VERDICT

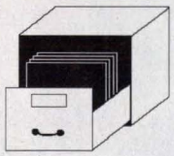
Graphics:	70%
Sound:	24%
Gameplay:	60%
Overall:	56%

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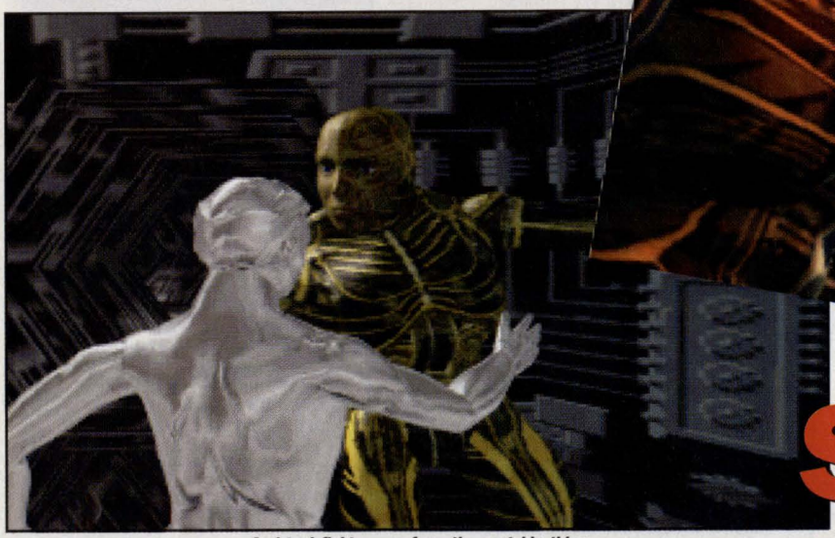
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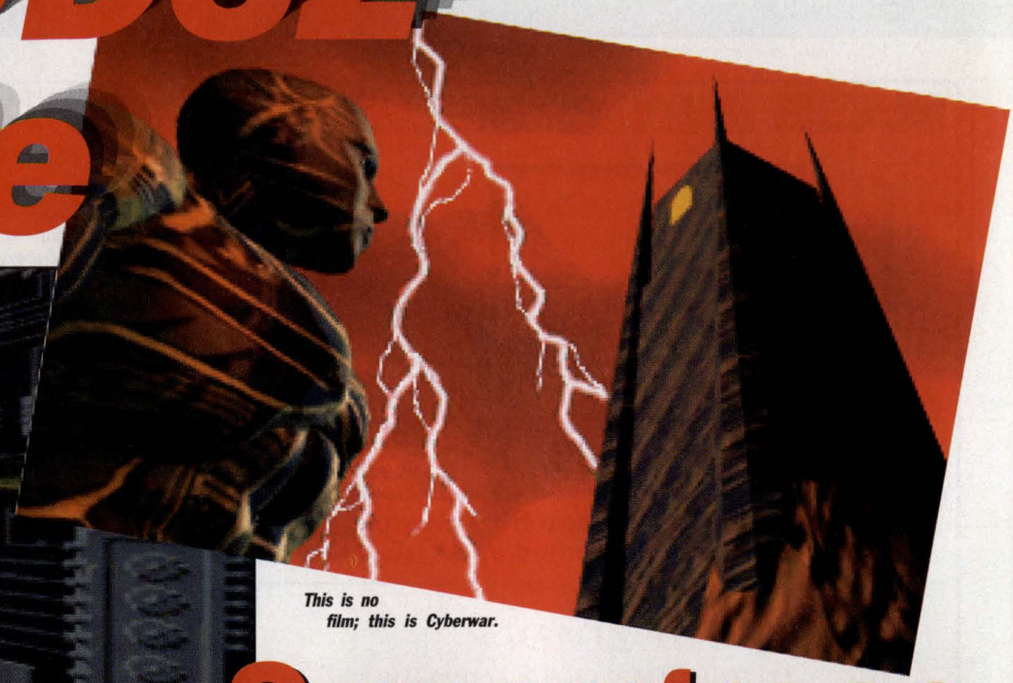
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The CD32 Scene



A virtual fight scene from the next big thing.



This is no film; this is Cyberwar.

Supergrass

The sequel to The Lawnmower Man, Cyberwar, is to be released on the CD32 later this year. It will take 3 CDs to fit in all the information, or so we are told. That's a fairly hefty amount of data for any game! (I doubt it will be making an appearance on floppy!) Judging by the shots that we've got hold of, something good should be on your CD32 by next Christmas. It remains to be seen whether the gameplay can be made to be as absorbing as the graphics. A true interactive movie made from fully rendered graphics? Maybe. Let's hope it's worth the wait.

Wembley International Soccer

Audiogenic CD32/A1200 £29.99/£25.99



It gets harder to tell one from another these days!

World Cup time again and so the inevitable deluge of soccer games starts. Wembley is very much the same as most footie games. It's modelled on the 'International' series that Audiogenic have produced and so the layout of the options is familiar. There's nothing to shock you too much. Choose your team and the game option, pick the opponents, and set up the play options – skill level, team play, wind, etc.

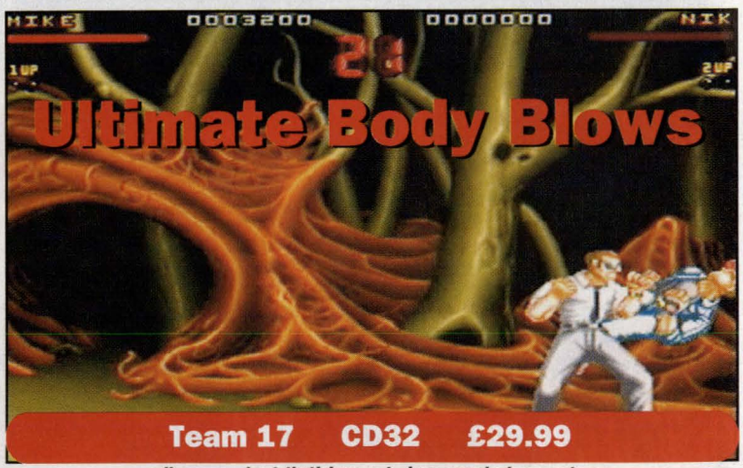
Once you get into the game, you'll be surprised by the poor crowd samples – yes, they are looped samples even on the CD version – and unimpressed by the standard graphics. I'd really like to see a new soccer game appear, with something exciting that you could write home about, but it isn't Wembley.

There is nothing wrong with Wembley International Soccer though, except that since it runs only on the A1200 and CD32, you'd expect the machines to be used more to their potential. OK, so it includes a side view and a top view, picture in picture close ups of players, but other games have similar features. If you've already got a football game, this probably isn't going to tempt you away from it. Try it out before you buy.

The control on the CD32 is a pain with the Commodore controller, by the way.

VERDICT

Graphics:	70%
Sound:	20%
Gameplay:	65%
Overall:	50%



Team 17 CD32 £29.99

I'm sorry about that! I seem to have punched you out.

This is just the game that any console needs. It's Streetfighter 2 only not crap. This edition of the game is a combination of Body Blows and Body Blows Galactic.

All the features you'd expect are there. Plenty of characters to choose from and to fight against. They all have their own special move and the fighting takes place against a multitude of luscious backdrops. The standard flying kicks and roundhouses mix with the supernatural fighting capabilities of the ghost character and the hi-tech of the robot.

The game can be played with either the controller or the option can be changed to allow you to use a joystick (my preference). That's a good idea.

The options also range from



A wolf-like creature on the piano?

The hero and his little pup set out.



Renegade CD32 £24.99



Smooth AGA shaded backgrounds together with CD enhanced music improve this popular platformer.

Fire and Ice is a conversion of the popular platform game that appeared a while ago on the Amiga. It stars a Cool Coyote, who is making his way from his icy home to more hospitable climes.

Freeze the enemies along the way in order to retrieve the parts of the key to unlock the gate at the end of the level.

There are a number of different shots that can be collected to make your freezing power more effective and it's possible to collect a pup on some levels who will follow you round to the best of his youthful ability and mimic your movements, ie shoot things for you. It gets a a bit annoying waiting for him though.

While all the graphics were good originally and still look fair, I still think the main sprite is not animated too well (probably due to his size) and looks stupid when he jumps.

This was one of the best platformers in its original form and the enhanced music makes it a nice addition to anyone's CD collection. There was a debate as to whether we actually preferred the new music, but the nostalgia buffs lost.

Good stuff.

VERDICT

Graphics:	76%
Sound:	80%
Gameplay:	85%
Overall:	83%

Super Methane Brothers

Apache CD32/A1200 £22.95

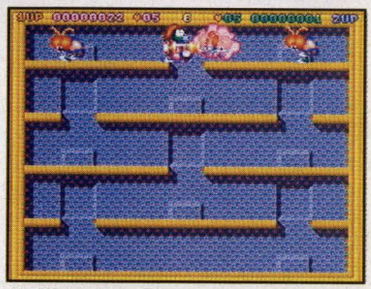


This game is similar to the type of arcade platform that appeared a few years ago. Jump around the game overcoming baddies by sucking them into your gun. Fire them out again against a wall and collect the goodies and advance a level.

It quite reminiscent to me of the Snow Brothers game or more recently, Qwak. Whilst Qwak is superb for price and playability, this game is has the polished atmosphere that we all like in games. It's got well animated characters and colourful graphics. It's not exactly original, but Rainbow Islands' fans should feel at home.

There are some nice options here too. One and two player and the choice of CD tunes, all of which will annoy the hell out of you after a while, I'm sure.

Not a bad game as far as playing is concerned, but it's not likely to wow your friends. Like Ultimate Body Blows, it is possible to stipulate joystick or controller.



A platform game like those seen in the arcades a few years ago.



The brothers go to do battle with their methane and their gas masks.

VERDICT

Graphics:	80%
Sound:	82%
Gameplay:	84%
Overall:	83%



Some weird flame character seems to be igniting this poor girl (but she isn't defenceless herself).

one player up to a tournament for you and your friends.

This is no game for gentle folk though. It's tough going right from the first round and you should have cut your teeth on beat 'em ups if you are going to go the distance.

Without doubt, this is the best beat 'em up yet on the CD32. Still, Rise of the Robots is yet to come...

VERDICT

Graphics:	85%
Sound:	77%
Gameplay:	86%
Overall:	84%

MARVELLOUS

21st Century are branching out. Following the success of their pinball sims (and the inevitable success of the next ones), they are trying their hand at a colourful platform game.

For the CD32, Marvin's Marvellous Adventure will have 6 layers of scrolling, 256 colours and a CD track.

As a pizza boy, the idea is to race through the 90 levels in order to deliver the pizza to the kidnapped professor. Can you deliver it quicker than it takes in real life?

amiga answers

APPS

Dear *AUI*,
Could you please help me to save my animation pictures from DP3. I draw several pictures using the animation section, only to find when they are saved, the first picture is saved, but none of the others, why, what am I doing wrong? I have asked my father to help, but he gets the same result. We have read the section on saving without finding the answer.

Keith Newsam
East Sussex

Dear Keith,
Nice easy one this. First of all I assume that you have created an animation without any real problems, it should run if you press 4 in anim mode. The saving is done from the Anim menu NOT the picture menu. Select save from anim and then make sure that you have set the required range of frames to save, e.g. 1 to 12.

Enter the device name to save to, and the file name and then click on save. That's all there is to it.

OS

Dear *AUI*,
I own a A600HD and have only a small amount of knowledge concerning this machine, as I have been using a C64. The problem is that when I got the A600 and turned it on, everything was fine. Straight into Workbench. I could load the disks that came with the package, Workbench2.05, Extras, Fonts and one or two different games. Now when I turn on all I get is System Request: NOT A DOS DISK IN DEVICE PDH0. After clicking the cancel I get into an AmigaDOS screen. I have tried different commands from the manual to try to get back into the Workbench screen, but with no luck. All I get is another system requester telling me to insert volume C into any drive.

Have I somehow wiped my hard drive, or is the fault something else? Do I need to reinstall these programs; if so how? I hope you can help.

J Higglesden
Somerset

Dear J Higglesden,
Your hard disk is corrupt. This could have been caused by several things, such as: switching the power off before the drive had been updated, a virus (I hope you are running a Virus checker ALL THE TIME) or a program crash that writes all over the disk.

What has happened is the information that tells the Amiga that there is a hard drive installed has become corrupted. You will need to boot from floppy to get things into such a state that you can do something about it. A program called disksalv might be worth trying. (Your local PD supplier will be able to provide a copy of it). A couple of passes with disksalv might locate the damage and repair it, but to be honest it sounds as if you really need to reformat the drive and start from scratch again.

You should have a disk with your system specifically for installing a hard drive. Just boot with this disk and use the installer utility (the same as our coverdisks) and it should do the job for you. BUT PLEASE only use copies of your original disks.

Once you have reformatted (and repartitioned the drive perhaps) you can restore your programs from your backup disks; you DO have backup disks don't you? If not WHY?

Answer Types

APPS	Programs etc]
VIDEO	Video related problems
COMMS	Communications
PROG	Programming
OS	Operating System
PRINT	Printer Problems
COVERDISK	Cover Disk problems
OTHER	For Anything Else

PRINT

Dear *AUI*,
Sorry to be so formal or should I call you just Ed? Well, perhaps not. Ah. Perhaps LIFE SAVER would be more appropriate, because I have read on many occasions that you have come up with solutions to many a problem for Amiga users and it seems to me that some of the problems were more than a life or death thing to those who have written in their hour of need. I think you can see the way this letter is now going. Yes. I am one of those who are in the same situation.

My problem is this. I run an appreciation society here in the United Kingdom on the subject of the late Harry Chapin, a singer-song-writer from New York whose life was tragically cut short at the young age of just 38 years. I also produce and edit our newsletter, Chapintouch, which appears almost every three months.

Not been to familiar with the workings of a computer before I purchased an A500 with some software from a friend a few years ago, I gradually upgraded to what I have now. An Amiga 1500, 7Mbs of RAM and 80 Mb HD which is split into two halves. Please don't get the wrong idea; this was not my doing, but that of the a friend to whom I bought it from. I use Pagestream 2.2 to construct the newsletter in a four page A4 format. I take the four pages along to my printer who in turn sets them into format you see in front of you now. The only other thing they do is to add the photographs which I am having problems with.

Being a very small society I try to do things on a shoe string and came up with the idea that I could include any photographs if I bought a black and white hand held scanner. I bought a scanner, the Datascan Professional 2.00 from Evesham Micros. (Which is an other story in its self). I read the instructions inside out and then I set about trying to use the scanner. No matter how hard I worked creating images, I still just could not get any reasonable quality. I was starting to go round the bend. I contacted a friend who told me to bring the scanner and all the bits and bobs along and he would try it as he owned a Power Scan similar to the one I had just bought.

As it turned out he could not make head nor tail with it either and I may add that he uses computers and scanners at his place of work. His advice was to cut my loses and get an upgrade to a Power Scan. So I did as he said and yes, there was a marked improvement, but I still thought that there was something missing. The quality was not as I had hoped. As you can see, I have tried to make the newsletter as professional as I am able to and the quality of the pictures is not up to standard. (A few enclosed).

Can you please help with some suggestions of how I might be able to improve on what I have done. I have an idea that it might be the printer. Will I just be able to reach this quality or is there any other way that I might be upgrade to a better printer only if it would not cost me an arm and a leg.

This is not quite a lifesaver letter, but it's not far from that.

On the subject of your magazine, I don't buy magazines every month, but when I do it has to be *AUI*. I find other mags are not as clued up as yours is. Still being a novice, I find the language simple and easy to understand. I spend quite a lot of time going over articles in *AUI* ,but find I skip over the complicated mumbo jumbo the other mags print

Sandy Glen

PS. I have heard from a friend that the new Pagestream 3.00 is on sale or is just about to make an appearance. Can you please let me have any info or write-up on this if it's as good or better than v2.2, it will leave the rest in its wake.

Dear Sandy,
Thank for the kind words about Amiga Answers! Before I get into your problem, you told me everything I needed to know apart from the version of Workbench you are using. I don't need to

know that for this particular problem, but another time it might make all the difference. It would have been very useful to know the make of printer you are using.

Also about Pagestream 3. When it is truly available, it will get reviewed or an updated review will be done. Until it is actually sold, no-one can be sure of the extra features. But like you, I have heard that it is does look good.

Now onto your problem.

You seem to have a problem with your printer. It looks like an inkjet (you did not say what printer it was), but at least four nozzles are not working. If it is not an inkjet you have a real problem! Printheads are expensive items to replace.

If you are using an inkjet, clean the head as instructed in the handbook. Or replace the head cartridge if it is of that type.

The next problem is that the pictures are direct .IFF dumps. Now if there is one thing that looks nasty is a dot matrix/inkjet picture of an .IFF file. The reason for this is that the dynamic range of a printer is very limited and you need to process the image a little before printing it out. You can also improve things by using a technique called 'dither' this is a method of grouping the dots in such a way that more shades are created.

I would suggest that you use an image processing package such as ASDG Art Department Pro, but that is rather expensive. A more useful program would be Wolf Faust's Studio printer drivers. These drivers give you lots of control over the output and would probably do what you need. I would suggest that you print the pictures separately and then paste them into the main document just as your printer does now. That way you can tweak the pictures without being limited by Pagestream.

It's a very good newsletter, especially as you are a novice. With a little work, I think you will be able to solve the problems.

As I now know that you have a Canon inkjet (telephone numbers are useful), I can add the following information. There is a special version on Studio, called Canon Studo and that is specifically for the Canon range of printers. Also the blocked jets being caused by a cartridge refill highlights the problems that this can cause. However as you get a new head everytime you buy a new cartridge, it is worth trying and as you say good enough for proofreading.

PRINT

Dear *AUI*,

Recently I purchased a second hand MISYS printer for my A1200 and decided to test it out by printing out one of the pictures supplied on SD31. Once I had loaded up the picture of the clown, I decided to try to print it out, but instead of getting an image similar to that on the screen, I got one as enclosed and have had similar results from my own drawings. I have been using a Epson X printer driver and the serial port. I have tested everything I can think of but can find no solution. Do you know what I am doing wrong and if so how can I change it?

Gavin Sims
Neath

Dear Gavin,

It looks as if something is starting to print, but then going wrong. I have a very good idea that it is the flow control between the printer and the Amiga that is causing the trouble.

Serial printers are very awkward to get running correctly on any computer system. The trouble is that for some peculiar reason printers tend to use DSR/DTR flow control rather than RTS/CTS. This is not a really hard thing to solve, but I have often wondered why printer manufacturers do not support the most common flow control lines.

For testing purposes, set the baud rate down to something very slow, as slow as you can make the printer go (300 bps perhaps). Try another printout. If things start to make sense, then it is the flow control that is causing trouble.

By using a very slow speed, you give the printer time to empty it's buffer memory by printing a line, rather than have valid data overwritten by the Amiga.

So if things are looking better, you need to get the flow control working. First set the Amiga up to use RTS/CTS flow control in Prefs. Ensure that the printer is also set for RTS/CTS flow control if it has such a setting. It may also refer to this as hardware flow control.

Set the speed up a bit, say 9600 or thereabouts, and send a file to the printer. If things go wrong, then a modified cable will probably be needed.

The modification is to connect the printers DTR (pin 20) to the Amiga CTS (pin 6) That should fool the Amiga into thinking that the printer is sending RTS/CTS and things should start to look a lot better.

If you have or can borrow a device called a breakout box, you can plug this into the printer leads and monitor the RTS/CTS/DTR/DSR control lines as well as the data lines. If the state of CTS or DTR changes the data from the Amiga should stop and only restart when the line changes state again.

PRINT

Dear *AUI*,

We have purchased a Canon BJ10SX to use with an Amiga A500 plus. It will print type, but we want to do graphics and we can't get the printer driver entered for this purpose. We have tried the instruction manuals for both printer and computer, but the terms used differ from out Workbench 2 display.

When we try to print graphics, we get something like a test page repeating itself continually. We would appreciate some info on how to set it up in plain English please, that is if it is compatible.

A.Wooder
Ilford

Dear A.Wooder,

The Canon BJ series is very, very good and completely compatible with the Amiga. I do wish that you had given me a lot more information on what exactly you are having problems with. Printer drivers are a big bonus when there are a lot of different printers, but for the beginner it can get very confusing indeed.

There are specific Canon drivers for the Amiga available from Canon or your dealer. If you have the drivers then all that is needed is to get them into the correct place and activate them.

The best way to do this is with a directory utility, such as Sid or Dopus. You can also do the job from Workbench. I will describe the Workbench method as that is the most likely means that you will have.

First make a copy of your Workbench disk and put the original away safe. Check the available disk space on it. You will need about 10K or so.

If you do not have any space, delete a few unwanted files to make room.

Select the Show All Files option from the window/show Workbench menu. You should see lots of other icons appear in the Workbench disk window. If not click in the window and select show all files again.

Open up the drawer called devs.

Open up the drawer called Printers.

You will see one or several printer names. These are the printer drivers.

Next put the disk with your Canon driver into a drive. Open the disk icon and again select show all files.

Open up the RAM: disk.

Drag the BJ driver into the RAM: disk.

Replace your Workbench disk into the drive, if you have removed it.

Drag the driver from the RAM: disk into the printer drawer that you have opened previously. If at any time you lose the driver Icon, remember to click in the window and select show all files.

(If you have more than one disk drive you can drag the file across without first dragging it into the RAM: disk.)

Once you have the driver copied into the printers directory, all you have to do is activate it. This is very easy to do. First close down all the unwanted windows. Next open up Preferences and select the printer icon. You should see a list of printers in the printer type window, including the Canon driver that you have just copied across. Click on it and it will appear in the selected window just under the list. Then select SAVE, the button under the list. Once you have done this, reboot the Amiga and the driver will be ready for use.

PRINT

Dear *AUI*,

I own an Amiga 1200 and a Intergrex colourjet 132 printer. I would like to be able to write business letters and then print them out. I have tried Workbench 3.0 with no success, so I was wondering if you could give me some advice on printer drivers or recommend a program that I could buy so I could print them out. Why is the Amiga such a difficult computer to use? I have a City & Guilds in wordprocessing 1+2 and have no trouble on PCs or my other computer (Acorn) in printing out letters. Please help as I would like to persevere with the Amiga, even though I feel like chucking it out of the window and chopping it up into little bits.

Robin Couzins
Canterbury

Dear Robin,

Please don't chop up the Amiga, vent your frustrations on the PC or Acorn instead. I have the displeasure of working with PCs quite a lot and I can tell you from bitter experience that they are horrible things to set up. The Amiga on the other hand is very well designed for expansion and peripherals.

The main problem is that you have not told me what your problem actually is. OK I can guess that you are having problems with printing, but what is happening?

The first thing to find out is what type of printer commands your printer understands. It could be Epson of HP emulation. As it is a colour printer, you will need to select the correct driver.

Printer drivers are very clever pieces of software and enable ANY program to use ANY printer. The programs always print in exactly the same way regardless of the printer. These special codes are sent to the printer driver program, which converts the standard codes into the correct command sequences for the printer.

Printer drivers are selected by using the Preferences program on Workbench. Select the printer icon in Preferences and just select the driver that you want to use REMEMBER to select SAVE!

Reboot the Amiga and that driver will become active. That is all there is

to it. If your printer emulates one of the main printers, such as Epson, HP, Star etc. The best printer driver of all is Wolf Fausts' Studio Printer software.

Other things to check are:

Make sure that you select the correct port. Most printers use the parallel port, again you select this via preferences. Also are you using the correct cable? Have you set the printer up correctly?

One last thing, there is a driver called Generic supplied with the Workbench. This is a very, very simple driver that just sends plain text to the printer. It strips just about all the control codes out. It is very useful for cases such as yours when you are trying to get things going. Using Generic you should get something and from there you can carefully change things until you find the correct settings.

Please remember that I cannot read minds; I need at least a few clues as to what is going on to be able to help.

OTHER

Dear *AUI*,

1) Is there anyway that you can connect the A570 upgrade to the A1200? I thought surely someone must have released an interface or adaptor which allows you to connect it. I have seen the Parnet adaptor and I was not sure if this would work.

2) If the answer to the above is "Yes", then does this mean I can use CD32 software as well as the CDTV software, since the A1200 has all the compatible chips which are required?

3) If the answer is "No" to the above questions, then is it possible to connect the A570 to the A500+ then connect the A500 to the A1200 via the Parnet adaptor? Then could I run CD32 and CDTV software on my computer?

4) Is there a CD-ROM drive which is currently available for the A1200? If so, how much does it cost, and again can it run CD32 software?

5) Finally, is there any difference between CDTV and CDROM software or are there both the same?

If you could answer the above questions, it would be very much obliged. These are problems which have troubled me for a while, but I thought enough is enough, so I have turned to you *AUI* the best mag on the market.

Jonathan Bushby
Glasgow

Dear Jonathan,

The 570 cannot be connected directly to the 1200. I doubt if an adaptor is available, as there are not enough 570s about to make the development of such an adaptor cost effective.

In answer to all of your 'can it run CD32 software' the answer is maybe, if the software permits it. To achieve an acceptable performance from the CD drive, which is fairly slow, special loading routines are used. So if the software is a bit picky about what it is running from then you will have problems. I sorry, but it is impossible to nail it down any better than that.

A 570 + A500 can be connected to just about any other Amiga by using Parnet. The only thing that Parnet can cause problems with is that is hogs the printer port. Not a major problem as a simple switch box will cure that. Once set up the 570 will look like any other device on the Amiga.

*By the time you read this, you cannot have failed to see all the coverage that the CD Drive for the A1200 has received. There was a review of it in the July **AUI**.*

As for CD ROM drives that will fit directly, I do not know of any, but if you have a SCSI interface for the A1200, it will be possible to fit a drive to that without too much bother. Prices will vary.

There is no difference between any software, it's all just 1's and 0's at the end of the day. The ISO 9600 standard is the recording format that CD ROMs tend to use and there are drivers that allow a CD ROM attached to the Amiga to read that.

OTHER

Dear *AUI*,

As an avid reader of *AUI* Over the years, I read with interest the letter from Steven Inglis, Lanarkshire in the March/April edition of your magazine in which he discussed the problems he had encountered with his XL high density disk drive.

I have been a user of the Amiga computer for many years and currently have an A500 + with a Cumana external disk drive 2 Meg Chip/2 Meg Fast RAM, hard drive and now the infamous XL drive. All of which now works correctly. It did however, take some time to get the XL drive up and running without the kinds of errors mentioned by Steven.

I will relate the history of how the problem was sorted in the hope that it will be of assistance to anybody who has encountered similar problems. It will also show, however, that the fault is not due to the differences in the drive port configuration as suggested by yourselves, but basically by a bug in the controlling software which is sent with the drive.

The story began when I purchased the XL drive directly from Power Computing on 29th December last year. On connecting the drive to my system and installing the drive software (version 1.3.1) it became obvious that all was not well. I encountered the formatting errors and read/write errors previously encountered by Steven.

On contacting Power Computing I was told that they were aware of the problem and that new software was being written by Mark Arnold their technical wiz and that it would be sent to me shortly. Sure enough within a week the new software arrived (version 1.3.2). Although the formatting problem was overcome the occasional problem read/write error still occurred but the most annoying was that on copying a large number of files on to a high density disk the system Guru'd with the same error message 600000003 and at the same point on every occasion.

I returned the XL-Drive with a letter to Power Computing in February 1994 with a detailed description of what had happened and a sample disk to copy files across from I gave them two possible outcomes, either the problem would be investigated or a refund given. I must say that all the personnel at Power Computing were polite and treated me with respect.

One week later I received a phone call from Mark who explained that he could not find the problems on their own A500 computers and wanted to check mine so we arranged an exchange of computers later that week and I waited.

Two weeks later on, I contacted Mark who told me that he had isolated a bug in the software and would be shortly returning my computer, the XL-drive and the new software. Which he has now done.

I would say that form the experiences of Steven and myself there are likely to be some more people who have been having problems with the XL-drive and I would recommend that they Contact Mark Arnold at Power Computing who will do his best to sort the problems out. If not, contact me.

Because of the high level of service I have received from the personnel at Power Computing, I will certainly be using them again when I upgrade or improve my current system.

Steve's problem with the ordinary drive results from the fact that the high density patch has been installed in user-startup. If removed the drive will revert to normal.

Paul Steward
87 Ainsley Close
Church Street
Edmonton
London
N9 9SH

Dear Paul,

Well, your letter was a nice surprise, on behalf of the many readers that are probably scratching their heads, let me say a big thank you.

The problem with Steven's drive was that it USED to work, but perhaps not as reliably as he thought!. It also goes to show that there are all sorts of pitfalls awaiting the unwary programmer.

Full marks to Power Computing and to Mark Arnold for their efforts with this problem.

OTHER

Dear *AUI*,

After owning two 16 bit Amigas I decided to upgrade to a CD32 with the intention of upgrading it to a A1200 with CD ROM. I would therefore like to ask you a few questions about doing so and on the FMV cart:

1. How much exactly will the add on cost (including keyboard, mouse, disk drive and ports)?

2. Can I get extra RAM?

3. Can I get a hard drive (or perhaps use the CDTV one)?

4. When will the 1.2 gigabyte CDs and MPEG2 be released?

5. Will these work on the present machines and at what price?

6. Will everything be nice and 'gunmetal grey' to match the CD32?

I hope you can answer these questions as I am dying to get back in front of a keyboard.

Tom Clementson
South Yorkshire

Dear Tom,

What CD32 expansion are you referring to? There is NOTHING on sale yet.

You can already fit a mouse, I have one on my CD32. Just plug a standard Amiga mouse into the mouse port. You can already fit a keyboard. The Aux socket can do this. Contact your dealer or see the adverts.

As for the rest you will have to wait and see what comes onto the market.

RAM, well you should be able to expand the Ram in several ways, but it will depend on expansion units, etc.

Same with the hard drive, what CDTV hard drive are you referring to, there were a couple?

MPEG2: maybe, maybe not, I've not even seen any reports of this so far. As for the 1.2G CDs, I doubt if they will come soon; there are no players for them at the moment. Current CD drives could not cope with them.

I would prefer to see shocking pink with green spots used as the color scheme for add on units, but I expect that the manufacturers of any expansion units will make the colours match!

OTHER



Dear *AUI*,
Regarding J.Eardley's problem of wanting the Audio tracks from his games disks May 1994 Amiga Answers. Hold out your hands ... slap on the wrists! Now here's the easy way. Buy a 2 into one phono lead. Plug the end with the one phono into the audio plug at the back of the all singing all dancing A600 then plug the twin end into the left and right phonos of say the 'AUX' at the back of the hi-fi, hey presto you can record all of your music to tape. You can get all combinations of phono to whatever, din 5 pin, mono jack, Canon. You baffle yourselves with science. You can even put your sound to video.

Ron Howe
Horley

Dear Ron,
Good suggestion that, but it does not always work. A lot of games change the music during the game, so you have to play the game in order to find the different pieces.

If you did that then you could stop and start the tape to get the full effect. By the way, the Amiga has stereo sound as well, so a twin phono lead will do the job.

One other point, you don't actually BUY such leads, do you? I keep a drum of cable and a selection of plugs and sockets and make them up as required, Much cheaper, better and I know the connections will be correct.

OTHER



Dear *AUI*,
I own an Amiga A1200 with a 340Mb overdrive hard disk unit. The drive plugs in via the PCMICIA slot. I currently own a 4Mb RAM board, but wish to expand this to 8Mb (possible more in conjunction with a 68030 accelerator). The problem is that any RAM above 4Mb seems to MAP into the card slot's address space thus hanging up the system. Since the drive inside the overdrive is a standard Conner 3.5 inch IDE unit, would it be possible to connect it to the A1200's internal IDE interface in any way whilst leaving the drive in its external casing + power supply?

I know that Dataflyer supply housing/connection kits to allow IDE drives to be fitted externally to the A1200.

Paul Davis
Somerset

Dear David,
It's a nasty problem and one that I have not come across before. The drive should have been designed to mark the PCMICIA slot and used RAM and then any other would have auto-configured into the correct place.

Generally the answer to your question is that Commodore will not support any internally fitted 3.5 inch drive? There is not enough drive capability on the IDE interface to power a long cable run. Of course you also know that some people have made this work. The warning is that you MIGHT be lucky and all will be well, but you will void your warranty and you could do some damage. It is your risk.

OTHER



Dear *AUI*,
I am the happy owner of a CD32. Having had the machine for only a couple of weeks, I am starting to find that it is displaying Workbench 3 style messages more and more frequently informing me of an error.

I decided to write when I tried your Amiga CD! Coverdisk 1 and the Microcosm demo refused to load. Instead of the demo I get a green screen and some spooky screaming noises! This happens every time.

Other errors I have come across are, for example, when I do a hard reset after playing Liberation. When rebooting the message "Ram Reset Error" is displayed. After loading a few other CDs this cures itself ...

What is wrong with my beloved CD32? If it is a fault in the machine will my warranty cover the fault?

Incidentally, when I got my spanking new CD32 home, I discovered that in the game save memory was a high score for Pinball Fantasies the shop claimed that it had not been on display, but I think otherwise.

Could you give me the name and contact number of a company that makes a cable to link the CD32 to an A1200 and possibly a price? I would like to use the CD32 as a CD ROM drive on my friend's A1200.

Steven Gore
Lancashire

Dear Steven,
I've deleted several of your example error messages, as they are all pretty random messages and yes I think that your CD32 is ill. I would guess that you have a poorly RAM chip somewhere. Take the machine back and demand a replacement. There should be NO high scores in the game save memory, unless the save feature was demonstrated to you. Some companies do test the machines before dispatch, but I suspect that the machine was on display, are there any obvious scuff marks on it?

*The CD32 adaptor from Brian Fowler Computers is what you want, see page 23 of the July issue of Amiga CD! in **AUI**.*

OTHER



Dear *AUI*,
Not so long ago a friend of mine said that he had played 'Knights of the Sky' on two Amigas (1.3 ver) and that was quite exciting as you were playing each other with out all the aggro of a split screen scenario. So now to the point:
My set up:
A500+
A590 (20 meg)
Pheonix 1 mMg trapdoor expansion
Cumana second drive

My son's set up: A500 (WB 2.04)
512K trapdoor upgrade coupled with TecoPlus 1 Meg through board.
On booting the A500+ gives ALL to graphics and NONE to other mem.
On booting the A500 gives 1/4 to graphics and 3/4 to other mem
So: If a lead to link up the computers is all I need then what type of lead?

I know the memory configurations of the two computers are governed by the original machine, so would the differences effect the way the machines link up?

Can I upgrade the A500+ to a CD32 (I have seen a board for the plus that does this, but it was only available in America)?

If my printer is connected to the serial port on my Amiga, what can I plug in to the serial port on the A590 HD?

After getting CD No 2 from your Fab/Brill/Great/Neat Mag!!! I placed it in my humble CD player (the one you get with your hi-fi) I noticed that it had 9 tracks 8 of them played music through my stereo much to everyone's amazement (not mine I have trust in the makers of the mag and knew that it would work), but track No 1 would not play for me instead my CD player responded with SPEC and that brings me to my last question - what is SPEC?

I Myers
Weeting

Dear I Myers,
The A500+ has 1 Meg of CHIP RAM; the A500 has half a meg of CHIP ram. CHIP ram is the memory that the special custom chips in the Amiga can have access to. These chips control the display and sound functions. Depending on the program this should not be too much of a problem; however, watch out if the program packaging says requires 1 meg chip, or A500+ only etc.

If the game is designed to be run on the two machines and also be connected to another Amiga, then there should be no problem.

Most games of this type use the serial port, with a simple cable, pins 2,3,and 7 only. However, this is not a hard and fast rule, some games use different connections, so check the docs first.

There is NO CD32 add on for the A500; I don't know what you saw in America.

You can get the A570 which is a CDTV add on however. And you'll be pleased to have seen that on Amiga CD! disc No.3 there was also some material specifically designed for CDTV and also the A570.

I doubt that your printer is connected to the serial port - they normally connect to the parallel port. You cannot connect anything to the serial port of the A590, because it has not got a serial port. The connector on the back is a SCSI port. Please read the handbooks carefully or you might do come damage.

SPEC, well SPECial at a guess. Most CDs will just reject the track (which is the software that is on the disk) and not display any message.

COVERDISK



Dear *AUI*,
My set up consists of: A1200 WB3, Cumana external drive and an old colour telly. I've only had my Amiga for six months after years twiddling with a C65. I find your magazine most informative and have been buying it since issue or disk 25, so it was before I bought my machine. To be honest I'm getting on really well and have had no problems with your Lha thingummy. Well almost none. I couldn't get WBPatterns to work at all, not an IFF file format or something and please describe in punter's language how to run RDS. Now I know about deleting RDS info file, but don't quite understand how to run programs from the shell.

How about a beginners' programming section please and how about a PD typing tutor to go on the excellent Coverdisk?

Chris Davies
Mid-Glamorgan

Dear Chris,
I'm happy to hear that you are not

having any problems with the Lha, it just depends on the setup of the machine and how you use the coverdisk. Hopefully the Lha problems will vanish when we use a later version of Lha.

I know the problem with RDS and it is easy to solve, but WBpatterns, on what disk is that? You MUST give me more info to go on rather than just a program name. I found WB patterns eventually, however.

All you do is click onto the icon and it will work. To edit the pattern load the file into the Workbench pattern editor (prefs).

RDS is very easy. Put RDS and the picture files into the RAM drive and then open up a shell. You do not have to delete the .info file, just do not click on it.

From the shell type cd ram: <ret>
then type RDS picture-name <ret>
RDS will then do it's stuff and create an RDS picture of the file for you.
Type UNRDS RDS-picture-name<ret> this will reverse the process.

We do run beginners' programming articles. The mentor series and others have been running for several years and are a very good source of information and instruction.

As for the typing tutor, do you know of one? I must admit that I've not seen a PD tutor. But in this issue of ***AUI*** *there is a review of the most famous of all typing tutors, Mavis Beacon, so that might be of help.*

COVERDISK

Dear *AUI*,
Question: What is Return Error Code 10?

Answer: The message I receive when I try to run your Amiga CD Magazine on my A57O CDTV.

I only installed my CDTV yesterday and have no software for it yet (apart from the 2 discs that came with the A57O). So when I saw that *AUI* had a CD coverdisk I was most impressed. I rushed home to try out all the amazing software .

The music demos work beautifully as the CDTV automatically loads the disc like a music CD. I have tried to load the games through the Amiga Workbench, but have been unsuccessful.

My limited understanding of CD software is that some CDTV software is CD32 compatible, but does this mean that some CD32 is not compatible with CDTV software. Originally, I thought the only difference between the CD32 and CDTV was the fact that the CD32 was a standalone console and the CDTV was an Amiga add-on. But presumably they have different booting systems or Kickstarts. There is probably a fundamental difference that I am unaware of, so please :

Is it possible for me to run this software on my machine or am I hitting my head against a brick wall?

Fitz
Bishops Stortford

Dear Fitz
Error code 10 means something is wrong. Literally just that. When an AmigaDOS command executes it returns a number to signal the result, a code of zero means everything is O.K. anything other than zero is an error of some sort. Error 10 is the default value. It is not a serious error, but it will stop the boot up.

The easy way to get at the software is to NOT boot from the Coverdisk, just boot up normally and use the 570 as a CDROM drive in the normal way.

The games are CD32 games not A500 games. Now this is very likely the problem (it's not quite clear from your letter if you managed to find the games to load or not). The 570 and the A500 is almost the same as a CDTV. The CD32 is very much like a A1200 with a CD drive. It has the AGA graphics chipset and a 68020 processor. As with many things the CD32 can run lower spec software, such as CDTV CD's but the CDTV cannot run CD32 software. It may be that some titles will support both machines and auto detect, but that will be up to the programmers of the software.

The A570 is an Add on for the A500.

The CDTV is a standalone console not an Amiga add on. It looked like a large CD player and it did have most of an A500 motherboard in it.

The CD32 is a standalone console. But as I mentioned above the Amiga CD! disc No.3 is now CDTV compatible too.

COVERDISK

Dear *AUI*,
Oh boy, I thought! A sound effects program! So I shelled out and bought your mag and have been forever since failing miserably to get soundeffect from your "Superdisk 32" to decrunch and run. I've not had my A1200 for long, but I feel reasonably familiar with Workbench 3.0. I think my problem has something to do with libraries, but the installation seems to work fine. It all ends up with a message along the lines of "Soundeffect can now be found in your Utilities drawer (or partition)" only it can't - I'm running from floppies. I'm fairly sure it's probably me doing something stupid that's so obvious to you it didn't bear mention in the mag, but I can't figure it out and a little more info on libraries for your less experienced readers would be of use.

I really hate your decrunching procedure; why can't it be as easy as all the other compressed coverdisks I've successfully used?

Well you did say to write if we had any feelings on it, don't hit me please!

Philip Rhodes
Chelmsford

Dear Philip,
The problem is with a library, or rather the lack of one. When I first created the installer system I used the latest version of the Lha archiver program, this did not require any extra libraries and worked every time with all machines. When the coverdisks were produced, for some reason a much older version of Lha was used and this version needed the ARP.library. As the coverdisks have to be produced a long time in advance, it will take some time for the correct version of Lha to appear on the coverdisks. (It should be there by the time you read this.)

As you have WB3, your life is fairly easy. Boot up from a COPY of your Workbench and open the disk icon. From the Window menu select SHOW and the ALL FILES option. You will see a few more drawers appear on your screen. Look for on called 'libs' and open it. You will find quite a few files with the suffix '.library'. Pop the coverdisk in the drive and open it up in the same way, and find it's libs drawer. Drag the ARP.library icon across to your libs drawer, swapping the disks as required. (You can avoid the swaps by dragging into ram: first and then into your libs.

Once this is done, you can reboot your Amiga and things should work fine. (They do here.) The lack of the library causes the Lha program to abort, without sending many, if any, error messages back to the installer.

The installer is the correct tool for this type of work. It was specifically designed to work on all Amigas from V1.3 upwards. That's why we use it. It is also SAFE. We have defaulted everything possible to RAM: so that accidental damage to Workbench disks is normally avoided. Some people do use their original Workbench disks to boot from, despite the number of times I tell them not to.

COVERDISK

Dear *AUI*,
I have a Amiga A600. I bought the February issue of *AUI*. On it, it had Personal Paint and SuperDisk No 32. I find Personal Paint very interesting, but I am not able to find out how to get lots of colours and enlarge the writing. I would be grateful if you could tell me how to do this.

I have also been having trouble with the Superdisk No 32. I have followed your instructions, but I am not able to crack it. I have been into two computer shops and asked someone I know who works with computers, but they have not been able to help me. I hope you can. At the beginning it asks whether you want hard or floppy disk. Having a floppy disk drive I selected floppy. It then tells you to have 2 or 3 formatted floppy disks ready. Then it asks you which program to unarchive. So far So good. I then start to get confused. I am not sure where the file should be unarchived. I am not really sure what 'make new drawer' means, whether it has something to do with the formatted disks. Anyway after this it says it is going to execute and to click on proceed if it look all right. After this it asks whether you want to install any libraries. This is the part I really get stuck on. I really don't know what to do. I don't mind where the programs are installed whether on the blank disks or Workbench disk etc, but I cannot crack it at all.

Also in the magazine it says that if the program required any libraries, you should re-boot from Workbench to use that program. How do you know it needs libraries and how do you reboot from workbench with an A600? It also says that sometimes libraries will be on the Superdisk and can be copied onto your Workbench libs directory for use by the programs. How do you do this if you need to?

Tim Evans
Preston

Dear Tim,
Easy one this, from the project menu select image format. This will bring up a requester. Select a low res or halfbright option, and use the slider to set the number of colours you want, up to a max of 64 with your system.

The text size - there are two ways to do this. Select the text tool and write something. Select the drawing tool and then the brush tool. Cut your text out as a brush and then use the brush menu to resize, double, flip, etc - whatever you want. The other way, will depend on what fonts you have on your system. Click on the text tool with the RIGHT mouse button. This will bring up a requester listing your available fonts. Select a bigger point size for bigger text. Topaz 9 is slightly bigger than Topaz 8. The numbers are the point size and one point is 1/72 of an inch.

SuperDisk 32, well you are having the same problem that is affecting a lot of readers. It is very unfortunate that this has happened, because a little more experience with the Amiga and

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Questionnaire

Please complete in block capitals

1. Mr ❒ Mrs ❒ Ms ❒

Surname:_____

First Name:_____

Address:_____

_____

Post Code:_____

Tel No._____

I am seriously interested in meeting someone through Dateline.



2. Personal Information

Marital Status: Single ❒ Divorced ❒

Widowed ❒ Separated ❒

Religion:_____

Age:_____

Place of Birth:_____

Do you have children of your own?

Yes ❒ No ❒

If yes, how many live with you?_____

3. Your personal details

Height:_____

Build: slight ❒ medium ❒ large ❒

Hair colour:_____

Dress/Looks: casual ❒ fashionable ❒ elegant ❒ sporty ❒

4. Your work

Present job:_____

Self-employed ❒ employed ❒

civil servant ❒ manual worker ❒

part-time ❒ not working ❒

unemployed ❒ in-training ❒

Schooling

O levels / GCSE's ❒ A levels ❒

Further Education ❒ Polytechnic ❒

University ❒ Business School ❒

Other:_____

5. Your Personality

❒ Warmhearted ❒ Fashionable

❒ Serious ❒ Practical

❒ Considerate ❒ Conventional

❒ Shy ❒ Reliable

❒ Romantic ❒ Adventurous

6. How would people who know you best describe you?

❒ always ready for a joke

❒ somewhat dreamy

❒ never has problems

❒ takes life a bit too seriously

❒ not easily upset

❒ always active

❒ chatty

7. Your interests

❒ Wining/Dining ❒ Jazz/Folk music

❒ Pubs ❒ Classical music

❒ Sports/Keep fit ❒ Theatre/Arts

❒ Politics/History ❒ Watching TV

❒ Reading ❒ Smoking

❒ Travelling ❒ Drinking

❒ Science/Tech ❒ Children

❒ Cinema ❒ Homemaking

❒ Pets/Animals ❒ Gardening

❒ Pop music ❒ Countryside



8. Details of the partner you would like:

Minimum age:___ Maximum age:_____

Height: min._____max.____Don't mind ❒

Children?

Yes, at home ❒ Yes, living elsewhere ❒

None ❒

Marital status: Single ❒ Divorced ❒

Widowed ❒ Separated ❒

Don't mind ❒

9. Which of the three pictures do you prefer? (tick the box)

Dept. AMI 02

Please answer the questions above, cut out this page and send it to us at
Dateline 23 Abingdon Road, London W8 6AL
or call us now on 071 938 1011

you would have no problem sorting this out, especially as I have answered this problem many many times in Amiga Answers. Thanks for sending your Superdisk; I have replaced the version of Lha on you coverdisk with the version that does not require the ARP.library which is the cause of the misery.

Rebooting from Workbench, you are going to kick yourself over this one... Put your Workbench boot disk in the drive and press control-Amiga-Amiga; in other words a normal boot!

If a program needs a particular library the documentation for that program will tell you. Read the docs. If the required library is on the coverdisk, the installer will show you this in the part that you get stuck on. The installer is asking you if you want to copy any of the libraries. Now the thing to remember is that installer will ALWAYS put things into ram unless you tell it otherwise. This is a safety feature.

The Amiga makes use of things called Devices. A device can be almost anything you have a floppy drive. This is a device and is called DF0: note the colon, that means this is a device. You can also have software devices. One such device is the RAM drive, called RAM: again the colon means device. You can take this one step further. Various directories on a disk can be made into a device. There is a C:, L:, and a LIBS: to name only three. The LIBS: is where libraries live. So to copy a library into LIBS:, change the RAM: into a LIBS: and let installer do the rest. You have to have enough room on your workbench disk for this to work, so be careful of this.

The Amiga operating system makes a LOT of use of libraries. In fact most of the Amiga OS is contained in libraries. What makes them so useful is that they are shared libraries, any program (if it asks nicely) can make use of them. The Amiga always looks for libraries in the LIBS: device, wherever that might be (on a floppy or on part of a hard disk), that is why you have to put the libraries in LIBS:. Many programs do not need extra libraries; the libraries already in the LIBS: are all that is required. That is why you are given the option, after all you may already have the correct libs. If so, there is no need to copy them again.

The make new drawer: well, that is just asking you exactly that. A drawer icon, the little box that you click on and it pops open like a drawer, hence the name. The computer term for these are directories; you can separate your programs into separate directories to make them easy to find. You will already have used the Utilities directory and the System directory in the normal use of your Amiga.

Please remember to ONLY use backups of your Workbench disks at all times. This will prevent accidents.

COVERDISK



Dear *AUI*,

I have the *AUI* SuperDisk 31 'Personal Paint' and since obtaining the magazine, I am still unable to use PPaint. I returned my first disk for attention, assuming it had to be faulty as when I try to load from the icons, I get a few seconds loading, then the computer (A600) crashes with a software failure error message. The replacement disk does the same. I have tried the CLI entry I have obtained a file 'PPaint' when run this has the same effect, a quick crash. Can you please help and tell me how to load PPaint for use on A600 2MB with two floppy drives - no hard disk? Thanks for an excellent Mag.

E.A.Clayton
Cheshire

Dear E.A.Clayton,

I do wish you had noted the error message as they do give clues as to what is going on. I know of no reason why PPaint should not run on the A600. It runs quite happily on my old A2000, on A500s, etc. All you need to do is click on the icon.

The only thing I can suggest at the moment is that you have a 2Mb A600. How have you managed this? It might be that your memory expansion is upsetting PPaint. It may sound strange, but this sort of problem has happened in the past with memory expansions just after the A500 was released.

Try removing the expansion memory and run PPaint then. Other than that, give me as much info as possible on your system and the error messages and I'll see if I can spot anything else that may be causing your trouble.

OTHER



Dear *AUI*,

Help! I own a CDTV I want to upgrade and have been led to believe by other mags (not so good as yours truly) that an upgrade is impossible. Do you know if this is true? I was pleased with Tim Bartrop's letter in your Feb issue who praised the CDTV quite well. I agree, but would like to buy games joysticks upgrades etc for it and I can't.

Mark Finch
West Midlands

Dear Mark,

Please try to give me a little more information on what you want to do. I'm not a mind reader! What type of upgrade are you talking about?

It is true that the expansion for the CDTV is very limited, but you can get joystick adaptors, keyboards, disk drives, etc. And as it is a A500 a lot of software should work, there are also the super CDPD disks that give you 600 Mb of software each to play with!

Contact Almathera

Tel: 081 687 0040 for your CDTV needs.

APPS



Dear *AUI*

I realise that you must be a very busy person, but I have been told by Brian Fowler (Exeter), who contacted you, that you could help me.

My problem is that I have an AOR AR-3000A Scanner radio with an RS232 port on the back as well as an 4Mb A1200 with 60 Mb hard drive. I have tried very hard to find some software and/or hardware to link up my radio to my A1200. I have read about fax, morse and weather picture decoders but I have not been able to find any. I would be interested in any and all such software and equipment within a range of up to several hundred pounds. Please could you tell me where I can buy such equipment as I have tried everywhere? Even Tottenham Court Road suppliers were not able to help me.

I would greatly appreciate any help you could offer. I subscribe to *AUI* and also own a FMV CD32, A500, scanners, digitisers, midis and have thousands of pounds of serious and fun software. I have owned a C65 and a Vic20 and have computer mags for about 14 years (I'm only 20) and must have read many of your articles.

Stephen Liddle
Watford

Dear Stephen,

Well, this is a subject that I can really go on about. I've held a Radio Amateur licence for the last seventeen years or so and I decode morse Rtty, fax, etc using the Amiga. There are several methods that you can use. There are special decoder boxes available that just need a simple terminal program such as Ncomm to connect to them. These boxes will decode any of the text based systems such as Morse, RTTY, TOR, ASCII, AMTOR, AX25 and quite a few others. In the world of packet radio they are known as terminal node controllers (TNCs). Now some are just TNCs, but many operate over many modes, such as I have stated. (I use the KAM all mode TNC).

There are SSTV decoders available (contact ICS), but there is one other source of software that you really should follow up. That is the AARUG, Amiga Amateur Radio Users Group. Just send a SAE and a blank disk to the addresses I've given below for their disk lists and such like.

As for where to buy things, I suggest that you look in Amateur Radio magazines such as Short Wave Magazine and Practical Wireless. I note that you live in Watford, and there is a Ham Store near you by Hendon Central, turn left out of Hendon Central and walk up the hill for about 600 yards.

For the AARUG, send a blank disk and a stamped addressed jiffy bag to: (remember to put the correct value stamps on it)

If your surname begins with A - M, send blank disks to: Ross McKinnon G0TXK, 30 John Smale Road, Barnstaple, North Devon EX31 2HR

If your surname begins with N - Z, send blank disks to: Bob Perks G0LBQ, 120 Cranes Park Rd, Sheldon, Birmingham B26 3ST

Your comments about my articles prompted me to have a quick count up. So far I have typed over 140,000 words of Amiga Answers, a total that surprises me! (And pleased readers! Ed!)

When writing to Amiga Answers include as much information as possible about your system and about which software/hardware you are running. This will help to determine what your problem might be and its solution!

Send your questions to:
Amiga Answers
Amiga User International
48 George Street
London W1H 5RF

write to reply

YOU TOLD US

*In the May issue of **AUI** there was a special readers' survey that included a space for your views, especially on Amiga CD! magazine. We thought that you would like to know what other readers – maybe you yourself if you wrote and forgot to take a copy – told us. Your opinions covered a wide spectrum of views but they were fascinating to read. Here's a selection of what you the people who really know – wrote.*

I loved the CD. I will buy it again and again.
M.M.,Scotland

Fine. Stands out from the rest. A lot better.
A.H., Shipley

An original and great idea. Well done Amiga CD! I honestly can't think of a way to improve this fab. mag.!
D.M., Tyne & Wear

I don't want that damn CDXL advert ever again! More reviews, discount offers (for FMV, SX-1 etc). In-depth interviews with developers.
A.C., Hull

It's fantastic! In France we are not as fanatic as you about the Amiga, it's a shame! I own a PC and I won't give up my CD32. Go on, it's OK!
B.J.P., France

The Cover CD is brilliant. The magazine will be a brilliant success. As for Ashley's shirts!!
S.G., Wigan

Playable demos I find very good. I did not rate D/Generation at all until I played the demo. I must have that game.
L.H., Lincoln

I like the cover of Amiga CD! in this issue. Try to have more striking features and make sure to keep it varied.
R.P., Belfast

Already Perfect.
A.L., Bedford

*I want the same serious attitude of **AUI** applied to ACD! The mag. is just colourful trash. I only get the mag. for the CD.*
D.R., Dorset

GRAND!
D.S., Herts.

As I am a newcomer I would like a beginner guide to Programming the Amiga. Don't change anything, it's great as it is. How about giving us all a pair of Bitmap Bros. shades to tone down Ashley's shirts?
I'd love to see some animation demos on the CD, but keep it as it is. I bought CD32 Gamer last week and it was CRAP. There is a lot more to your CD.
T.B., Staffordshire

The idea of exchanging a CD for a PD disk is not going to make me go to Comet, or buy a CD32. Allow the reader to keep the CD! Make your CD mag. readable instead of adolescent garbage.
M.L., Bristol

I would like to see the CD come in a hard case.
S.T.B., Hants.

Please, no more TV ad on the CD. And no more live reviews. It's just a sad excuse to get your face on the CD. We would like more games, demos, games and demos.
M.S., Cheshire

I think that the magazine is great. I would think it awful to change it in any way.
P.J., Clwyd

10–20 free games every disk!
More product investigation.
FMV film reviews. The game selections on May CD were good. Liked the live game reviews.
M.C., Gwent

The Letters page looked like something out of Total! Please, treat us like adults in the way **AUI** does. Tweak P.D. games to work properly.
J.W., Watford

I think you should improve the front cover, make it brighter so it sticks out more in the newsagents.
Give away Ashley Cotter-Cairns Hawaiian shirts with the next issue.
C.W., Birmingham
(We have done!)

Any improvements made to this magazine wouldn't be noticed. Because this mag. is COOL!!! the way it already is.
A.P.R.,Birmingham

I liked and still prefer the old (Feb. 1988) format **AUI**. The CD32 is not something I would buy unless it could be fitted legally to my A1200.
C.C., Essex

Amiga User International is well balanced and well written. If I wanted anything different I would buy another mag. Keep up the good work.
More previews. More news. Make it a separate mag. It's good enough!
K.R., Gwynedd

The ability to keep the Cover CD and still get me second disk!
A.J.G., Swindon

I think you know what I'm going to say already, but I love my CDTV, and I will only get rid of it if I am forced to do so.
D.F., Penge

More games and demos, news on FMV films and games and competitions to win loads of CD goodies.
P.M. Knottingley

Demos (i.e. vision and sound). No harm in demos of floppy games as a lot still only come out on floppy.
C.V., W. Litherland

In the Amiga CD mag. there are next to no advertisers offering CDs for sale. PC mags. are full of them.
A.B., Norfolk

Encourage CD32 users to expand to a full computer (keyboard and disk drive) by releasing a CD with full DTP program and word processor and database etc. – can be all PD.
I would like Music Video & CD+G demos. Educational information on CD and reference material. Info and maps of countries and UK cities. A "doomsday" like project using photos etc. from **AUI** readers.
M.A.N., Peterborough

I don't like the -Blip-pangs-flops...when you select an option in the menu. I would prefer it FASTER and without the sound FX. It would be more professional! More free games and demos. Anyway your Cover CD is GREAT!
U.N., Geneva

What an excellent mag. Just keep your CD on the front or make a separate mag. I'd buy that for a tenner. Make your CDs Workbench screens so I can copy PD of the CD to normal floppy. Thanks.
C.H., Tamworth

Nothing to do with the magazine! But writing to say sorry for using a red pen. Can't afford blue or black ink 'cause I'm saving for an FMV module, 'cause I won't win!
P.W., Hants

Give 2 CDs away, with a lot more about demo and reviews, but get the reviews out early so the games aren't already on the market.
A.M., Lothian
(Tell the games companies to get them to us earlier!)

I am completely satisfied with the cover CD. I would like to see the magazine section enlarged. Other than that 10 OUT OF 10.
R.C., Birmingham

write to reply

→

Providing good source of software for when I get the CD32. Don't like pullout look, when it isn't a pullout.
D.F., Blackburn

FMV on the disk as well as CDXL. Put both on so as to make everyone happy. Oh yes, some PD on it please.
A.R., Jersey

Not cynical enough of Manufacturers. Get tough!
K.C., Croydon

The Cover CD must start to contain more "Work-in-Progress" previews. Most of the demos included were of games already on the shelf!
D.P., Leyton

The magazine is great to read, but the graphic design is appalling.
J.R., Northants

It's a well written, well balanced magazine. I only bought it because of Amiga CD, but it is good.
On the CD more organised reviews and more demos are needed. The magazine is fine.
P.H., W. Midlands

So far the magazine has been top notch, but it would help if it was a bit longer. Keep up the good work.
J.P., Shropshire

The Cover disc was excellent, so more would be appreciated. I've recently acquired my CD32 and my judgement is that it is now firmly on the move and I feel sure you could fill a full size mag. I think the format is very good but needs to expand a further 40 or 50 pages.
D.B., Northfleet

More educational type software. Keep supplying Cover CDs.
C.S., East Lothian

Seems to be quite a good balance. Game reviews are a bit superficial, but who cares??
B.W.D.,Middx.

Free handwriting lessons. Playable demos are a good idea.
S.P.C., Birmingham
(Free handwriting lessons?)

I've just bought CD32 Gamer which is frankly CRAP. Amiga CD is far superior. Just cut down on Max's voiceovers.
D.P., Cheshire

I have always bought your magazine and I always will. So how can I criticise a PERFECT magazine. If it was crap I wouldn't buy it.
CD magazine is brilliant, but I reckon you've gone over the top with the CD motion video and the voice overs. So less video and more game demos.
D.K., Manchester

AUI ranks in my opinion 2nd only to Amiga Format. Given AF has considerably more muscle/backup/ resource ***AUI*** is a credit to its Producers and a gift to the Amiga masses.
Get a format for the Cover CD i.e. tunes, demo, PD games, pictures and stick to it. That way people will know roughly what to expect and "bonding" will occur to the product.
G.H., North Wales

Overall, excellent. Need more info on game releases and Add-ons for the CD32. Also a list of CDTV titles compatible with the CD32. Cheers. Keep it up, we will convert the Floppy Faithful!
D.K., W. Barracks

Very impressed with your magazine and especially the free CDs. Keep up the good work.
J.M., Essex

Just carry on as you are.
A.Y., Gillingham

More handware scoop reviews. More business/video util. reviews. But let Reader Survey decide, along with positive sound business sense.
J.M.H., Nottingham

Please include the CD on the overseas issue.
J.M.D.T., Portugal

A part of the CD for A570 users and reviews in the CD magazine for the A570.
C.L., Edinburgh
(Your wish is our command. As you can see on No.3)

Trailers, more more more please. I also liked the new review idea, it worked very well. More of these disks should be produced.
T.M., Northampton

Right, check all the games etc. are fully compatible with CD32 when compiling a CD. A better selection/menu system. Don't go all "multimedia". Fast and simple is what we want. We know the CD32 Kicks Ass. More music on the CD. Get some music bins. By the way – what ever happened to Rob Hubbard – Remember SANXION (C64) Cover CD32 Hardware.
S.K., Scotland

I think that the Amiga User International mag is excellent and it is just a pity that there is not more of it. PUT MORE ON AND IN THEM!
B.W., Liverpool

Regarding the CD – very good except sometimes the voices get a little too silly – only a minor gripe. I was particularly impressed with the live reviews – do more!! Have more demos as well. Very good effort. Let's have a 'TFX' demo!!! You're better than Amiga Format's new CD32 mag. which is a good achievement and you're also cheaper. Don't get over the £4 mark.
G.C., Warwickshire

I like Game previews/demos as with games/CDs costing £20+ it's too late when you've bought it to find it's crap whereas a one level demo gives a good idea of what the game is like. Congratulations on setting the standard for CD Cover Disks!
M.B., Devon

The disc is great and the voices are an absolute scream! More of the same.
J.G., Northampton

Preview demos of forthcoming games and programs on the CD32 and adverts by computer companies and games manufacturers (moving adverts).
R.E., Herts.

I think you should tell Commodore how to make a Demo CD.
M.C., Lancs.

Maybe a few more consideration to overseas readers. Otherwise, I like your mag. (Si si, beaucoup).
P.D., Belgium

Put Workbench on it with Shell input from Ser: so that an A500/+/ 600 could connect.
H.F., Cheshire

I would not normally buy this magazine if it weren't for Amiga CD, but it has been quite enjoyable. More demos. Better than CD32 Gamer. Better PD and Shareware.
N.B.S., Southampton

A totally separate Amiga CD magazine featuring games and CD films.
J.M.P., Lincs.

Public Domain demos/fonts/clip-art (full price games would be nice but probably impractical). Unbiased magazine reviews of games (of course) CD music videos? And more music programs please.
A.W., West Sussex

CD Magazine sold separately, more pages, drop live reviews from CD and replace with more PD games and demos etc.
T.M., Scotland

Why can't we have the whole magazine on a CD ROM? The technology is here now and magazines are too thick in volume to keep.
D.R., Essex

I'd like to buy them in AUSTRIA!
G.R., Austria

Why not have a games competition. Let the readers send in their own games. Publish them all, on the CD, and let the readers vote for the winner. Prizes!
A.H., Norway

If you're going to put a CD in place of the SuperDisk, then at least put the SuperDisk contents on the CD!
A.S., Cleveland
(Well, we have included TWO SuperDisks on Number 3.!)

The magazine needs a bit more substance and a bit fewer jokes. I like it as a whole, but it'll need improvement to stand its ground. Go independent from *AUI*, but try to protect us from getting stiffed on the price. Enhance the games you put in a bit. Other than that, keep it up!
J.C., U.S.A.

Amiga CDROM Software

SPECIAL UPDATE FROM PDSOFT

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For the Amiga Computer, Aminet contains 3800 programs from the Aminet Internet archive. The programs range from the games to general business programs and programing tools. You deserve to own this current comprehensive 650Mb library of software.

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CM² Productions

I only read Amiga CD. I think there should be more tips in the magazine and basically more of everything, thank you. Plus more previews of forthcoming games on the Amiga CD. Less funny/not so funny comments.

R.B., Cheshire

You're trying to make it look like a TV program which I'm not sure can be done. I like the humour but I don't think most computer users will – in most cases they have no sense of humour at all! But you've shown the world what the Amiga can do.

M.C., Surrey

You could have a space which tells the readers of the forthcoming releases and when they should be on the market. I noticed a picture of Claudia Schiffer on the demo of Video Creator, how about putting that in the magazine or Picture Show.

P.W., Glasgow

(Watch out for the gorgeous Claudia soon!)

Excellent magazine. It has been very hard to find a magazine for my new CD32. My only criticism is that the magazine ought to be longer. Keep putting more demos and games on the CD.

D.C., Lincs.

I believe that CD! is a very good and informative magazine and would personally appreciate anything else that could be put in the magazine or on CD.

G.T., Edgware

Could you make your Cover CD to be compatible with any Amiga fitted with a CD-Rom Drive (e.g. A4000 with SCSI CD-ROM)?

K.E.H., West Midlands

More film trailers.

G.W., Essex

Can I suggest a D.I.Y. section with Hardware projects?

D.R., Greece

No problems here. Early days yet. Thought CD No. 2 was excellent with a good mix of demos and live interviews. Good sense of humour too. More of same please with polishing of rough edges. If possible more interaction with multimedia (something along the lines of Pandoras CD from Optonica).

J.H. West Midlands

Make it easier to flick between options, games etc. on the CD. Obviously aimed at the younger element, crap jokes etc. Maybe more music. Don't think the film clips work. Well, couldn't play the golf! Space Invaders was a treat. Otherwise Bloody Brilliant!

N.C., Cheshire

This is the first time I have bought *AUI*. Overall it is quite good but doesn't seem as glossy as Amiga Format or CU Amiga, although when it comes to test drive, Amiga Answers, Competitions it (*AUI*) matches them. The magazine lacks good coverage of games although I liked the Amiga CD disk and CD games review section, which is why I bought the magazine in the first place, and I probably will again. A good idea on the CD disk might be instead of live reviews of games (you can hardly make out the game on screen although a good idea) how about showing a couple of freeze frame shots of the game with a voice over on the CD disk so you can at least see the graphics are good/bad and the voice over can tell you about playability, sound, addictiveness etc.

B.M., Glasgow

(A suggestion we'll be following in future)

I like the idea of having a CD and floppy disc with every issue. Value for money. If I win can I have a CD game?

S.A., Herts.

Use non-reflecting paper! More in-depth articles on perhaps fewer topics. Amiga CD! – Better layout needed. For CD – how about some text articles perhaps with pictures on CD.

K.G., Stirlingshire

(Another suggestion we're following up)

We use only 1/10 cover discs – but one or two cover disc utilities are real gems – you win some, you reformat the rest. Demos (playable) amuse Junior and save him money. Game demos (playable) are very useful.

R.G., Darlington

At times like Easter (e.g.) put two CDs on the cover.

A.M., Lincs.

(Two CDs? Someday... someday...)

And we had hundreds and hundreds more.. All of the commients were interesting and many very useful too. We'll be taking up a number of the suggestions that you made and that's what feedback is all about, isn't it?

I loved reading the comments and I love reading your letters. Keep them coming!

write to reply

Dear *AUI*,

I have just bought the June issue of your great mag and I am outraged, where is the CD No. 3??? Have you run out of demos and info to put on the CD? It does not say much for the shape of the CD32 software scene if you have no new demos to spread across your luscious shiny CD!

The extra cover disk, Money Matters, yawnarama city! Why do magazines keep putting these FREE utilities on cover disks that take up a whole disk. I really did want to be made into a financial wizard, I think not! You make it seem like we are getting these "worthwhile" utilities for free and saving us £50. Well, matey peep, you ain't saved me a penny, I wouldn't have bought it in the first place. The disk was quickly flung on my blank disk pile. Which fool chooses these programs and thinks that the public wants them? You are not the only magazine that does this. 90% of all the "free utilities" have been passed over by me. I am sure many others will have done the same, come on, truthfully, how many people spent longer than 30 minutes using Money Matters?

The Superdisk No. 38 was excellent, packed with USEFUL programs that cost a few pounds. Much better value for money than £50 of worthless bile. Why can't we have TWO disks like No. 38, better for the public, and save you time finding those awful "full price" (wow!) utilities.

One last plea, when you do the CD next month, let's have a disk like No. 38, and not a free utility to accompany the CD. I have got a CD32 and A1200, and I don't want to swap the CD for the cover disk packed with programs, I would much rather swap the "free complete program"!!

Contrary to what you might think, I am not a joystick junky, and I think your Amiga CD! "first" was innovative and ground breaking, the Future Publishing CD mag was pathetic, and the less said about the one coming from Bath the better! Keep up the good work, down with complete free programs.

Julian Smith
Sheffield

Dear Julian,

Wow! You certainly got that off your chest. But I'm not sure how many readers agree with you. We have in recent months been trying out the idea of putting full programs on the cover instead of the usual disks crammed with utilities. Opinions seem to be divided whether readers are in favour of them or not. The trial might not have been an entirely fair one because we launched Amiga CD! at the same time with a CD going on the cover which may well have confused the matter.

You clearly would have liked the July issue which did have two utility floppy disks available. (If you couldn't get to swap your CD, you can send it to us and we'll post you the missing floppy.)

And you are perfectly entitled to your view that if you want a full program, like Money Matters, then you can buy it. But undoubtedly many people need to try out something before they know they want it. (I've been attempting to persuade girls the truth of that statement for years!)

And at least this month, you will be delighted with the SuperDisk, 24 utilities! You should be in in seventh heaven!

And as for your opinion on the competitors to Amiga CD!, as a recent TV programme said, you might say that, but I couldn't possibly (though I might completely agree with you!).

Dear *AUI*,

Buying your April 1994 issue, I learned that you could change the CD at Comet, which is miles away from where I live, but I was able to get to Comet and the CD changed for a Cover Disk.

But your May 1994 issue, you have to get the thing changed at Rumbelows, there is not a Rumbelows Store for miles and miles from me, so I am unable to get the CD changed for a Cover Disk.

Please can you check to see if I am a winner and change the

CD for the Cover Disk.

A. Gledhill
Cleveland

Dear A.Gledhill,
We did check and, sorry, you aren't a winner. But if there are any readers out there who can't get to a Rumbelows or Comet to excange the disc, send it to us and we'll do the honours for you.

Dear *AUI*,
I have looked everywhere for CD+G. Please could you tell me where I can get hold of some.

J. Wilby
Norfolk

Dear J.Wilby,
What you may not realise is that there are plenty of CD+G discs about. Time Warner have produced a considerable number. But so have other music companies but they don't make – to use an appropriate phrase – a song and dance about it. You have to look carefully at the information on CD packages. You will find that quite a few of them will have the magiuc letter CD+G.

Dear *AUI*,
I have bought two of your mags (so far) and I must say they are very good.

I am a proud owner of a CD32 and for almost five months there had been nothing for us CD32 owners to read (except, of course, for the special edition of Amiga CD! that came in the box). I had noticed your magazine on the shelf in W.H. Smiths but had never purchased it because before the CD32 came along I owned an Atari STFM (but the less said about that the better). Now you cater for the CD32, I buy it, but it would appear that CD32 mags are like a bus, you can wait months for one to come along and TWO come together.

YES! unless it has escaped your notice, there are now two CD32 mags available with cover CD's so it would seem you have some competition! (NOT!)Although the other mag had 6 demos and 23 shareware & PD games (and 66 pages), it wasn't a multimedia CD like yours. So I don't think there will be much competition really.

Also, as the mags are so different, and because there is so little out there for us CD32 owners to read, we (or at least me anyway) will buy both mags.

So keep up the good work.

C. Ankers
West Midlands

P.S. I would rather see more of Ashley's shirts than insult my CD32 with some of the crap PD games on the cover CD No. 2. What happened to Rocky, Smurf Hunt etc. I was looking forward to playing those, and I suspect I am not the only one who thinks this.

P.P.S. I know this letter is a little long-winded, but it's the only one I have written to a mag anyway, so I would be grateful if you would reply.

Dear C. Ankers,
Yes, the world isn't always the way we want it. Getting an Amiga CD! magazine off the ground was no easy task. It took a lot of time and effort especially, as you say, it's a real multimedia one. Others could do the same but why haven't they? Lack of determination? Creativity? Imagination? Guts? Who knows what drives – or doesn't drive – the very peculiar and all too often weak and lazy publishing spirit? That's why doubtless there will be loads of others that will leap onto the accellerating bandwagon once someone has built the road for them.

As for what happened to the titles you missed on the second disc, by now you will have the third and found that what it said was there, was there. On the second we suffered from "technical problems" (which are generally caused by human beings!) and at the last moment – after the magazine was printed. So unfortunately we were unable to correct the text. Sorry!

Dear *AUI*,
Concerning your March/April CoverCD can I put forward a few suggestions/ideas/ congratulations from a CDTV user's point of view.

1. Great! It was innovative and indeed a WORLD FIRST! (How many times was that claimed? I lost count). I would like to see this established as a regular feature of *AUI*, although I do realise a single CD must take a while to put together.

2. Concerning Superdisk 34, would it be possible to put these files onto the CD as well. Not only could they be on the disc, but they needn't be compressed. As the CoverCD was full to only approx 100meg there is plenty of room, perhaps SuperDisk 33 could have been placed on the CD also for a bit of added convenience.

3. My CDTV is connected to both my A2000 and A1200 via Parnet (PS. If you have two Amigas you NEED this program). I was wondering if you could add Opalvision Thumbnails to the graphic files on the CD. These are transparent to users of other graphic software but prove indispensable to Opalvision users. The issue of Thumbnails taking up space is non-existent as they are only a few K, and I don't think the 600med+ monster would mind. The Opalvision MakeThumbnails utility would also automate the process making the time demands on *AUI* staff relatively small.

4. This question may be redundant, but depends on the format of the files. I am not able to run the CDXL files on the CoverCD. This may be due to them being AGA modes, in which case ignore this question. But, if they are normal mode CDXL files, is there some way of making them viewable, perhaps via the CDTV workbench?

I do realise that the majority of users of the CoverCD will be CD32 owners and those people with a CDTV make up a much smaller proportion of your readers, and users with both a CDTV and Opalvision is even lower. However, if you could implement any of the ideas I have proposed, you will certainly have one very satisfied reader.

Callum Hingston
Auckland
New Zealand

Dear Callum,
You – and a few other readers who have written are something of a mystery. We did not put the CD on the issues that went overseas from the UK. How then did you – and the few others who have written – get hold of the magazine with the CD on it?

Anyway, we have dealt with some of your suggestions. The SuperDisks are being included on the CD and we have made at least parts of the CD compatible with the CDTV and the A570.

*As for the OpalVision thumbnails, we will certainly look into the posibility of doing that in future. As you say, for those who don't have OpalVision it won't make much diference. However, believe it or not, even with 600 megs to play with we are beginning to find some constraints.The **AUI**/Parkinson Law is that data expands to fill the storage available to it.*

Dear *AUI*,
I have noticed (and I am sure you have by now) that since your release of the Amiga CD that a lot of your letters are concerned CDTV and A570 owners. Don't worry, because I have read your reasons (excuses) why your disc is concentrated on CD32 owners, but with over 500 meg to play with, you might have something you could fit on there for us happy but unfortunate 16 bit CD Rom owners. After all, it was your magazine and its reviews that made me buy my CDTV in the first place. The machine is neat, good looking, is part of my stack system and is also my Amiga with disk drive, so I don't really want to replace it with a not so elegant (on the outside) games console. Please, please, please, just something small would keep me happy. Also, you would guarantee A570 and CDTV owners as regular customers for you (me, me).

One more thing, I don't know if I am supposed to write this in this section, but here it is anyway. Bruce Rudsell (Clwyd) who wrote in to May's issue with the computing side on the CDTV, you can get a very easy to fit switch from GOLDTECH COMPUTER SYSTEMS which turns the CDTV into 99% standard Commodore Amiga. Tel. 081-521 6209.

Darren Francis
South London

Dear Darren,
As you will see from my reply to Callum, we have started to be able to include material not just for CD 32 owners on the Amiga CD! disc.

*Yes, **AUI** did support the CDTV and rightly too, it is a good machine. It's just a pity that it wasn't upgraded to the more advanced Amiga operating systems. Still we can only go with the equipment that comes out and the Amiga CD 32 is now the one that Commodore are producing but we will try not to forget CDTV or A570 owners in future.*

And thanks for your tip on the easy-to-fit switch. I'm sure there will be plenty of readers who will take advantage of it.

Send your letters to:
Write to Reply
AUI
Amiga User International, 48 George Street, London W1H 5RT

If you wish to send an Email letter to Write to Reply or Amiga Answers, ***AUI*** can be contacted on CIX as **Amigauser@compulink.co.uk**

Next Month in

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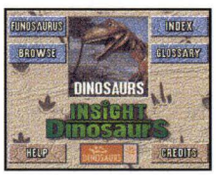
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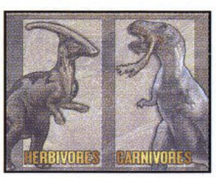
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INSIGHT:DINOSAURS is the second title in the INSIGHT series, a lavishly produced title rich in multimedia. You can be assured INSIGHT:Dinosaurs will be visually stunning and technically correct as the title is being produced in association with the British Natural History Museum, one of the world's foremost centres of excellence in the field of paleontology. A unique title for the whole family, produced in a concise, easy to read style which allows it to be used for reference and browsing alike.



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DINO PAINT is a simple to use children's colouring book with 25 pages for you to colour.



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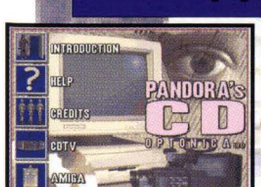


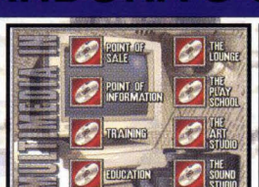
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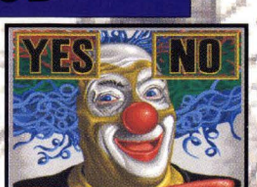
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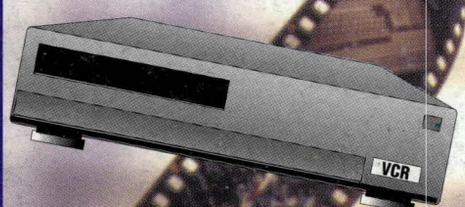
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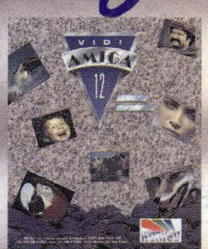
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